



flowDual E2 SiC

1200 V / 5 mΩ

Features

- C3M™ SiC MOSFET technology
- Standard industrial housing
- Low inductive design
- Optimized Rth(j-s) with Phase Change Material
- Built-in NTC

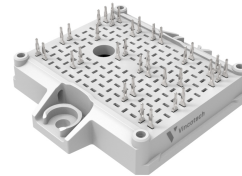
Target applications

- Charging Stations
- Energy Storage Systems
- Power Supply
- Solar Inverters
- Welding & Cutting

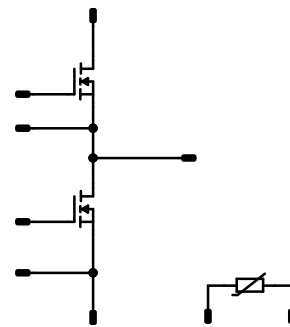
Types

- 10-EY122PA005ME-LU39F08T

flow E2 12 mm housing



Schematic





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10-EY122PA005ME-LU39F08T
datasheet

Maximum Ratings

$T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	Value	Unit
Half-Bridge Switch - Lo side				
Drain-source voltage	V_{DSS}		1200	V
Drain current (DC current)	I_D	$T_j = T_{jmax}$ $T_s = 80\text{ °C}$	182	A
Peak drain current	I_{DM}	t_p limited by T_{jmax}	720	A
Total power dissipation	P_{tot}	$T_j = T_{jmax}$ $T_s = 80\text{ °C}$	303	W
Gate-source voltage	V_{GSS}		-4 / 15	V
		dynamic	-8 / 19	
Maximum Junction Temperature	T_{jmax}		175	°C

Half-Bridge Switch - Hi side

Drain-source voltage	V_{DSS}		1200	V
Drain current (DC current)	I_D	$T_j = T_{jmax}$ $T_s = 80\text{ °C}$	182	A
Peak drain current	I_{DM}	t_p limited by T_{jmax}	720	A
Total power dissipation	P_{tot}	$T_j = T_{jmax}$ $T_s = 80\text{ °C}$	303	W
Gate-source voltage	V_{GSS}		-4 / 15	V
		dynamic	-8 / 19	
Maximum Junction Temperature	T_{jmax}		175	°C

Module Properties

Thermal Properties

Storage temperature	T_{stg}		-40...+125	°C
Operation temperature under switching condition	T_{jop}		-40...+($T_{jmax} - 25$)	°C

Isolation Properties

Isolation voltage	V_{isol}	DC Test Voltage* $t_p = 2\text{ s}$	6000	V
Isolation voltage	V_{isol}	AC Voltage $t_p = 1\text{ min}$	2500	V
Creepage distance			min. 12,7	mm
Clearance			9,34	mm
Comparative Tracking Index	CTI		≥ 600	

*100 % tested in production



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Characteristic Values

Parameter	Symbol	Conditions					Values			Unit
		V_{GE} [V] V_{GS} [V]	V_{CE} [V] V_{DS} [V] V_F [V]	I_C [A] I_D [A] I_F [A]	T_j [°C]	Min	Typ	Max		

Half-Bridge Switch - Lo side

Static

Drain-source on-state resistance	$r_{DS(on)}$		15		240	25 125 150	3,73	7 8 9	6,93 ⁽¹⁾	mΩ
Gate-source threshold voltage	$V_{GS(th)}$		0		0,069	25	1,8	2,5	3,6	V
Gate to Source Leakage Current	I_{GSS}		15	0		25		60	1500	nA
Zero Gate Voltage Drain Current	I_{DSS}		0	1200		25		6	114	μA
Internal gate resistance	r_g							0,283		Ω
Gate charge	Q_g		-4/15	800	240	25		708		nC
Short-circuit input capacitance	C_{iss}	$f = 100$ kHz	0	1000	0	25		20142		pF
Short-circuit output capacitance	C_{oss}							774		
Reverse transfer capacitance	C_{rss}							48		
Diode forward voltage	V_{SD}		0		120	25		4,6		V

Thermal

Thermal resistance junction to sink ⁽²⁾	$R_{th(j-s)}$	$\lambda_{paste} = 3,4$ W/mK (PSX)						0,31		K/W
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Characteristic Values

Parameter	Symbol	Conditions					Values			Unit
		V_{GE} [V] V_{GS} [V]	V_{CE} [V] V_{DS} [V] V_F [V]	I_C [A] I_D [A] I_F [A]	T_j [°C]	Min	Typ	Max		
Dynamic										
Turn-on delay time	$t_{d(on)}$					25 125 150		81,92 72,96 71,36		ns
Rise time	t_r					25 125 150		44,16 38,08 37,44		ns
Turn-off delay time	$t_{d(off)}$					25 125 150		176 192,64 196,8		ns
Fall time	t_f					25 125 150		19,13 19,67 20,12		ns
Turn-on energy (per pulse)	E_{on}					25 125 150		7,14 6,92 7,06		mWs
Turn-off energy (per pulse)	E_{off}					25 125 150		4,96 4,89 4,95		mWs
Peak recovery current	I_{RRM}					25 125 150		70,69 121,3 135,34		A
Reverse recovery time	t_{rr}					25 125 150		24,01 41,34 43,89		ns
Recovered charge	Q_r					25 125 150		1,18 3 3,46		μ C
Reverse recovered energy	E_{rec}					25 125 150		0,315 0,821 0,972		mWs
Peak rate of fall of recovery current	$(di_{rr}/dt)_{max}$					25 125 150		8511 7629 7909		A/ μ s



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Characteristic Values

Parameter	Symbol	Conditions					Values			Unit
		V_{GE} [V] V_{GS} [V]	V_{CE} [V] V_{DS} [V] V_F [V]	I_C [A] I_D [A] I_F [A]	T_j [°C]	Min	Typ	Max		

Half-Bridge Switch - Hi side

Static

Drain-source on-state resistance	$r_{DS(on)}$		15		240	25 125 150	3,73	7 8 9	6,93 ⁽¹⁾	mΩ
Gate-source threshold voltage	$V_{GS(th)}$		0		0,069	25	1,8	2,5	3,6	V
Gate to Source Leakage Current	I_{GSS}		15	0		25		60	1500	nA
Zero Gate Voltage Drain Current	I_{DSS}		0	1200		25		6	114	μA
Internal gate resistance	r_g							0,283		Ω
Gate charge	Q_g		-4/15	800	240	25		708		nC
Short-circuit input capacitance	C_{iss}	$f = 100$ kHz	0	1000	0	25		20142		pF
Short-circuit output capacitance	C_{oss}							774		
Reverse transfer capacitance	C_{rss}							48		
Diode forward voltage	V_{SD}		0		120	25		4,6		V

Thermal

Thermal resistance junction to sink ⁽²⁾	$R_{th(j-s)}$	$\lambda_{paste} = 3,4$ W/mK (PSX)						0,31		K/W
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Characteristic Values

Parameter	Symbol	Conditions					Values			Unit
		V_{GE} [V] V_{GS} [V]	V_{CE} [V] V_{DS} [V] V_F [V]	I_C [A] I_D [A] I_F [A]	T_j [°C]	Min	Typ	Max		
Dynamic										
Turn-on delay time	$t_{d(on)}$					25 125 150		81,92 72,96 71,36		ns
Rise time	t_r					25 125 150		44,16 38,08 37,44		ns
Turn-off delay time	$t_{d(off)}$					25 125 150		176 192,64 196,8		ns
Fall time	t_f					25 125 150		19,13 19,67 20,12		ns
Turn-on energy (per pulse)	E_{on}					25 125 150		7,14 6,92 7,06		mWs
Turn-off energy (per pulse)	E_{off}					25 125 150		4,96 4,89 4,95		mWs
Peak recovery current	I_{RRM}					25 125 150		70,69 121,3 135,34		A
Reverse recovery time	t_{rr}					25 125 150		24,01 41,34 43,89		ns
Recovered charge	Q_r					25 125 150		1,18 3 3,46		μ C
Reverse recovered energy	E_{rec}					25 125 150		0,315 0,821 0,972		mWs
Peak rate of fall of recovery current	$(di_{rr}/dt)_{max}$					25 125 150		8511 7629 7909		A/ μ s



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Characteristic Values

Parameter	Symbol	Conditions					Values			Unit
		V_{GS} [V]	V_{GE} [V]	V_{DS} [V]	V_{CE} [V]	T_j [°C]	Min	Typ	Max	

Thermistor

Static

Rated resistance	R					25		5		kΩ
Deviation of R_{100}	$A_{R/R}$	$R_{100} = 493 \Omega$				100	-5		5	%
Power dissipation	P							245		mW
Power dissipation constant	d					25		1,4		mW/K
B-value	$B_{(25/50)}$	Tol. $\pm 2 \%$						3375		K
B-value	$B_{(25/100)}$	Tol. $\pm 2 \%$						3437		K
Vincotech Thermistor Reference									K	

⁽¹⁾ Value at chip level

⁽²⁾ Only valid with pre-applied Vincotech thermal interface material.

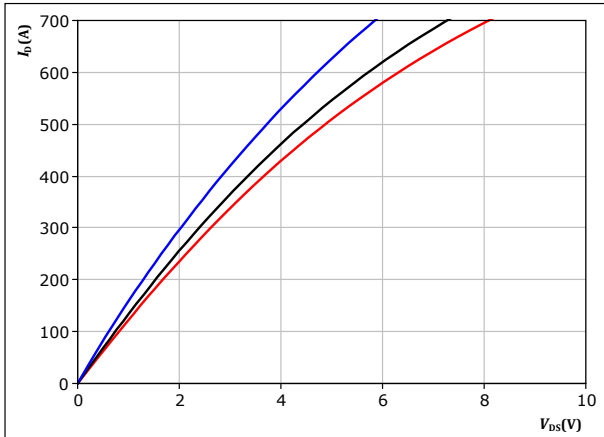


Half-Bridge Switch - Lo side Characteristics

figure 1. MOSFET

Typical output characteristics

$$I_D = f(V_{DS})$$



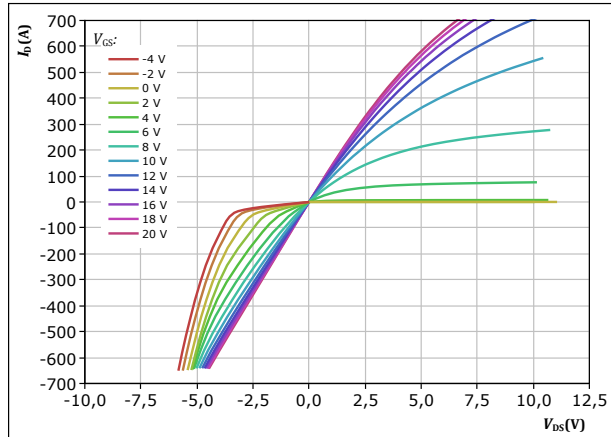
$t_p = 250 \mu s$
 $V_{GS} = 14 V$

T_j : 25 °C (blue)
125 °C (black)
150 °C (red)

figure 2. MOSFET

Typical output characteristics

$$I_D = f(V_{DS})$$

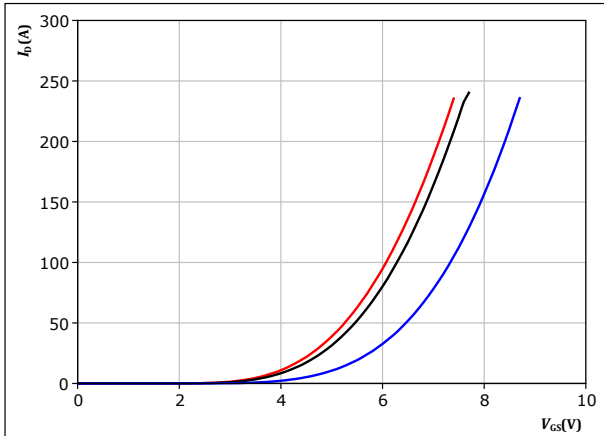


$t_p = 250 \mu s$
 $T_j = 150 \text{ °C}$
 V_{GS} from -4 V to 20 V in steps of 2 V

figure 3. MOSFET

Typical transfer characteristics

$$I_D = f(V_{GS})$$



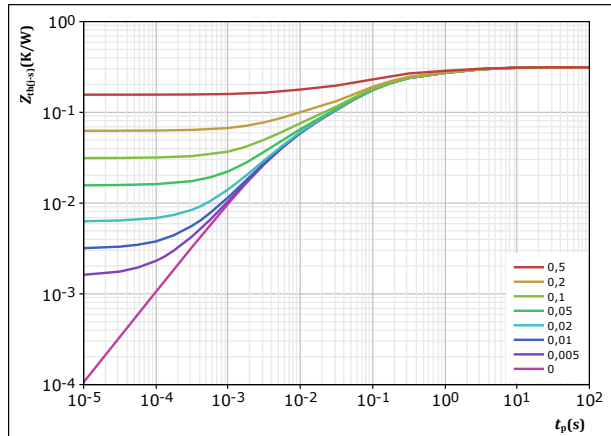
$t_p = 250 \mu s$
 $V_{DS} = 10 V$

T_j : 25 °C (blue)
125 °C (black)
150 °C (red)

figure 4. MOSFET

Transient thermal impedance as a function of pulse width

$$Z_{th(j-s)} = f(t_p)$$



$D = t_p / T$
 $R_{th(j-s)} = 0,313 \text{ K/W}$

MOSFET thermal model values

R (K/W)	τ (s)
2,18E-02	4,91E+00
5,79E-02	1,09E+00
1,25E-01	1,28E-01
7,04E-02	3,88E-02
3,80E-02	4,91E-03

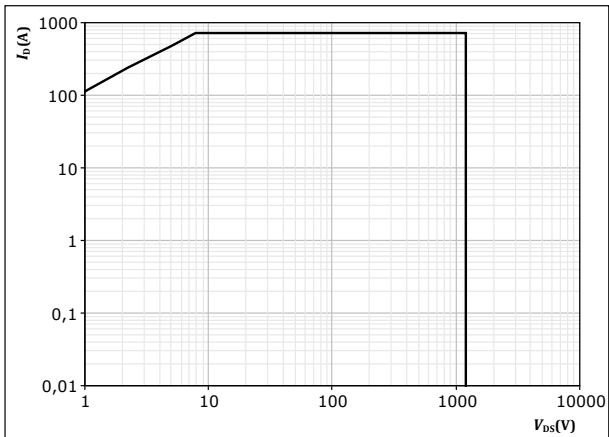


Half-Bridge Switch - Lo side Characteristics

figure 5. MOSFET

Safe operating area

$$I_D = f(V_{DS})$$



$D =$ single pulse

$T_s = 80$ °C

$V_{GS} = 14$ V

$T_j = T_{jmax}$

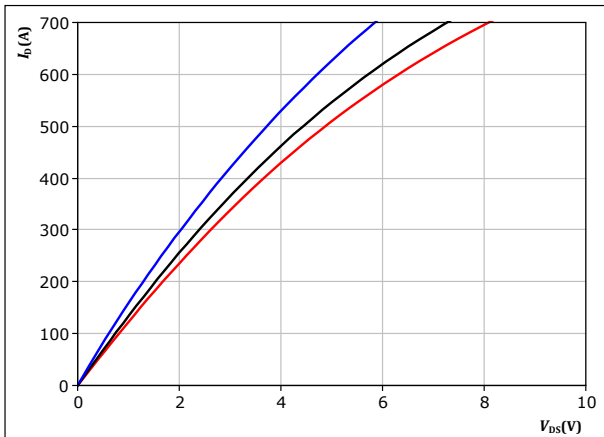


Half-Bridge Switch - Hi side Characteristics

figure 6. MOSFET

Typical output characteristics

$$I_D = f(V_{DS})$$

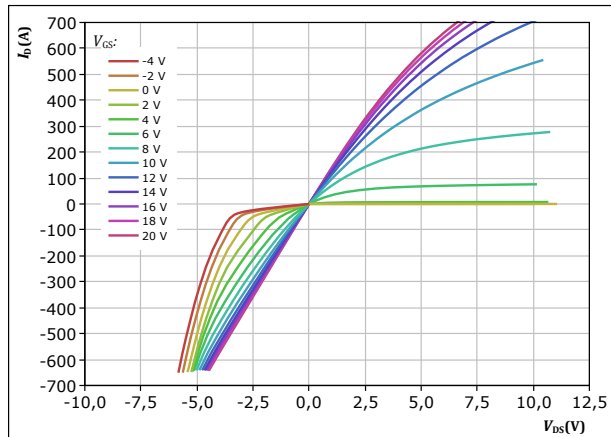


$t_p = 250 \mu s$
 $V_{GS} = 14 V$
 $T_j:$ 25 °C, 125 °C, 150 °C

figure 7. MOSFET

Typical output characteristics

$$I_D = f(V_{DS})$$

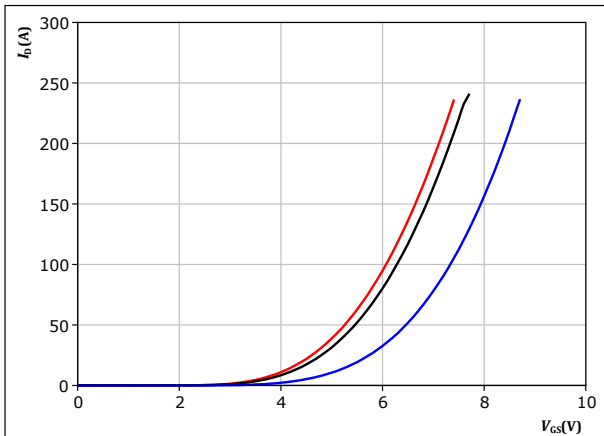


$t_p = 250 \mu s$
 $T_j = 150 \text{ °C}$
 V_{GS} from -4 V to 20 V in steps of 2 V

figure 8. MOSFET

Typical transfer characteristics

$$I_D = f(V_{GS})$$

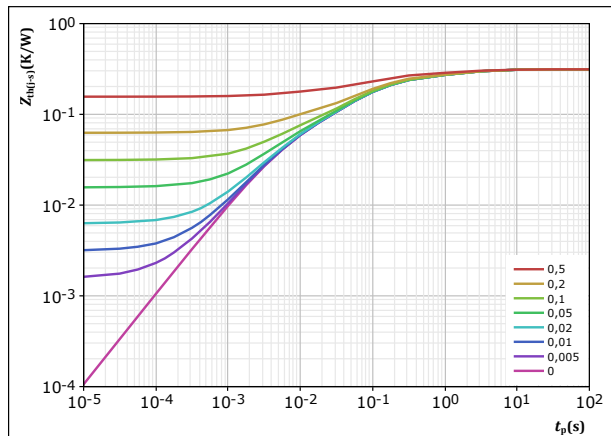


$t_p = 250 \mu s$
 $V_{DS} = 10 V$
 $T_j:$ 25 °C, 125 °C, 150 °C

figure 9. MOSFET

Transient thermal impedance as a function of pulse width

$$Z_{th(j-s)} = f(t_p)$$



$D = t_p / T$
 $R_{th(j-s)} = 0,313 \text{ K/W}$
MOSFET thermal model values

R (K/W)	τ (s)
2,18E-02	4,91E+00
5,79E-02	1,09E+00
1,25E-01	1,28E-01
7,04E-02	3,88E-02
3,80E-02	4,91E-03

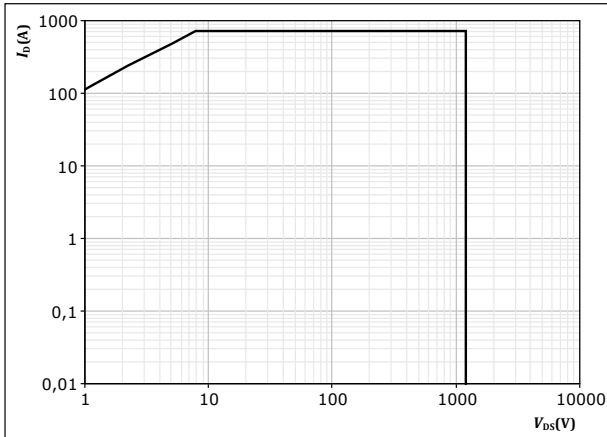


Half-Bridge Switch - Hi side Characteristics

figure 10. MOSFET

Safe operating area

$$I_D = f(V_{DS})$$



$D =$ single pulse

$T_s = 80$ °C

$V_{GS} = 14$ V

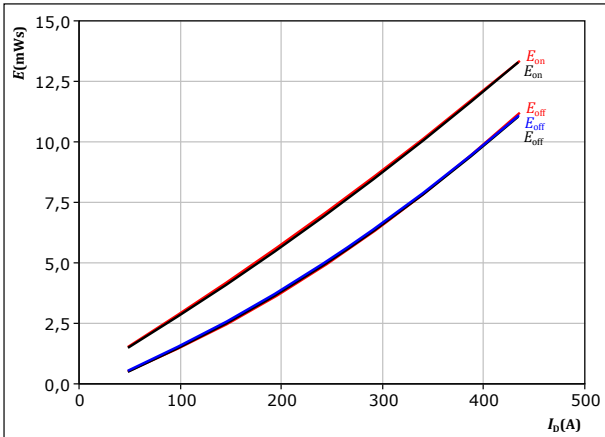
$T_j = T_{jmax}$



Half-Bridge Switching Characteristics - Lo side

figure 11. MOSFET

Typical switching energy losses as a function of drain current
 $E = f(I_D)$

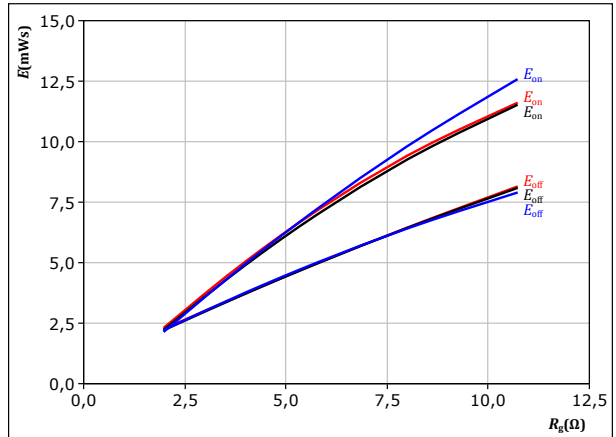


With an inductive load at
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \ \Omega$
 $R_{goff} = 5,8 \ \Omega$

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 12. MOSFET

Typical switching energy losses as a function of gate resistor
 $E = f(R_g)$

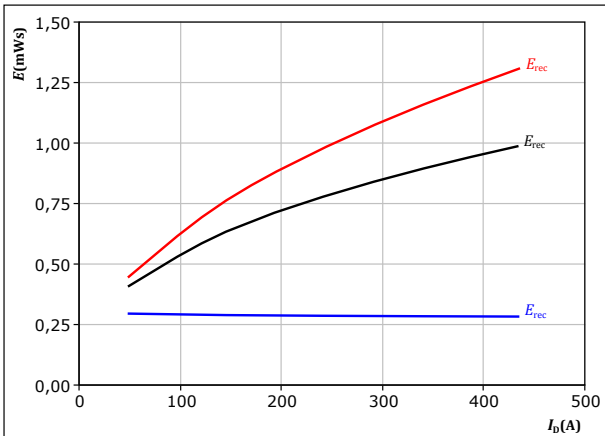


With an inductive load at
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 13. MOSFET

Typical reverse recovered energy loss as a function of drain current
 $E_{rec} = f(I_D)$

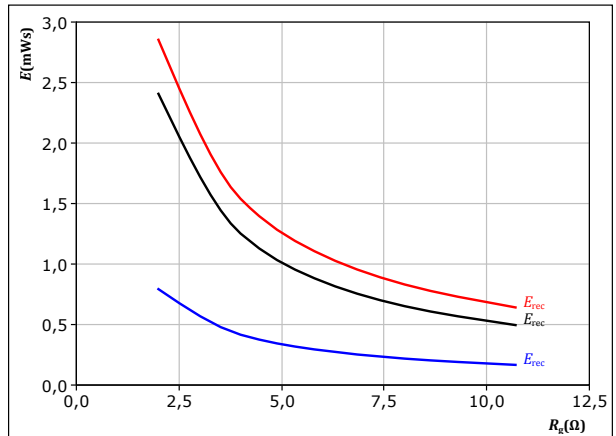


With an inductive load at
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \ \Omega$

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 14. MOSFET

Typical reverse recovered energy loss as a function of gate resistor
 $E_{rec} = f(R_g)$



With an inductive load at
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$

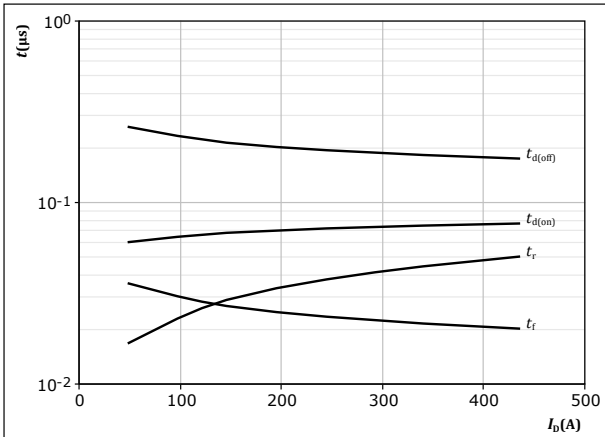
T_j : — 25 °C
 — 125 °C
 — 150 °C



Half-Bridge Switching Characteristics - Lo side

figure 15. MOSFET

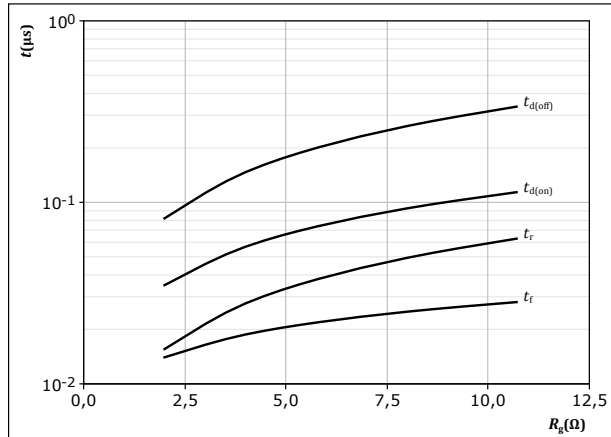
Typical switching times as a function of drain current
 $t = f(I_D)$



With an inductive load at
 $T_j = 150 \text{ }^\circ\text{C}$
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \text{ } \Omega$
 $R_{goff} = 5,8 \text{ } \Omega$

figure 16. MOSFET

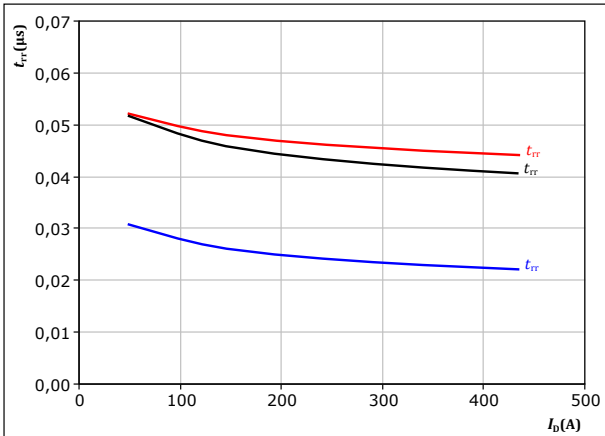
Typical switching times as a function of gate resistor
 $t = f(R_g)$



With an inductive load at
 $T_j = 150 \text{ }^\circ\text{C}$
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$

figure 17. MOSFET

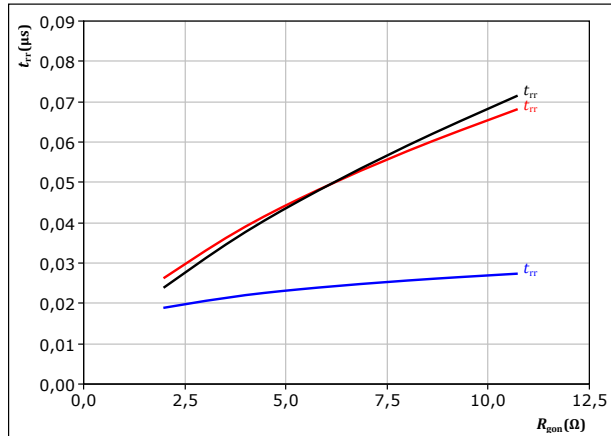
Typical reverse recovery time as a function of drain current
 $t_{rr} = f(I_D)$



At $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \text{ } \Omega$
 T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 18. MOSFET

Typical reverse recovery time as a function of turn on gate resistor
 $t_{rr} = f(R_{gon})$



At $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$
 T_j : — 25 °C
 — 125 °C
 — 150 °C

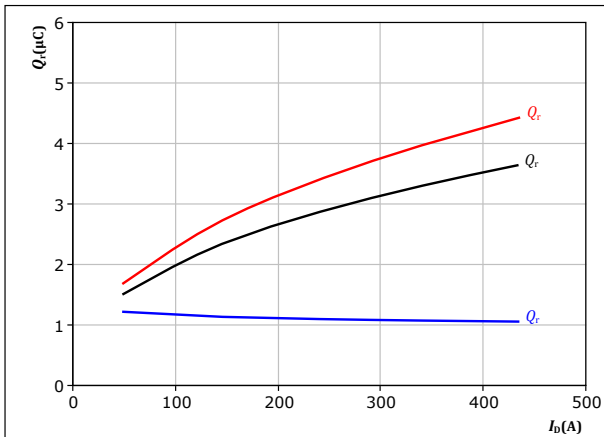


Half-Bridge Switching Characteristics - Lo side

figure 19. MOSFET

Typical recovered charge as a function of drain current

$$Q_r = f(I_D)$$



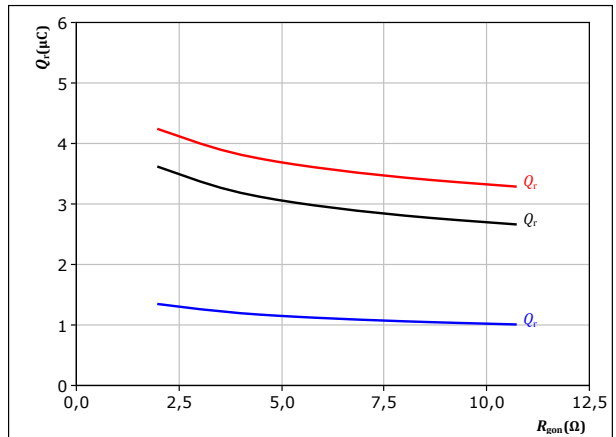
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{gon} = 5,8$ Ω

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 20. MOSFET

Typical recovered charge as a function of turn on gate resistor

$$Q_r = f(R_{gon})$$



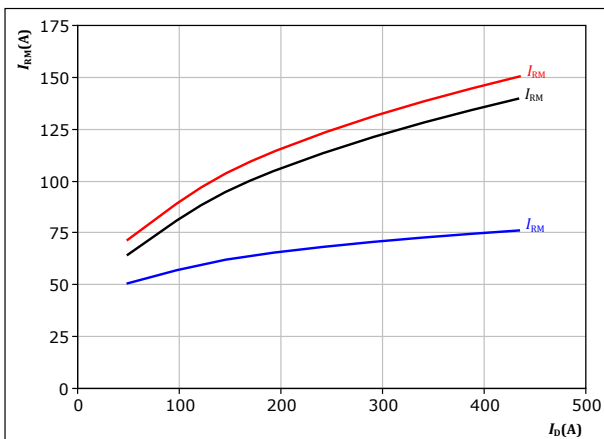
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 21. MOSFET

Typical peak reverse recovery current as a function of drain current

$$I_{RM} = f(I_D)$$



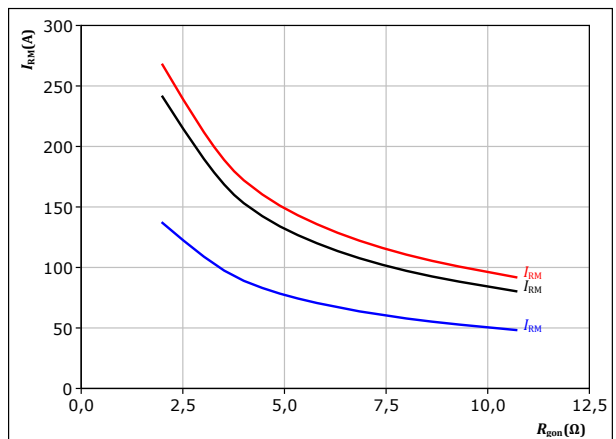
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{gon} = 5,8$ Ω

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 22. MOSFET

Typical peak reverse recovery current as a function of turn on gate resistor

$$I_{RM} = f(R_{gon})$$



At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

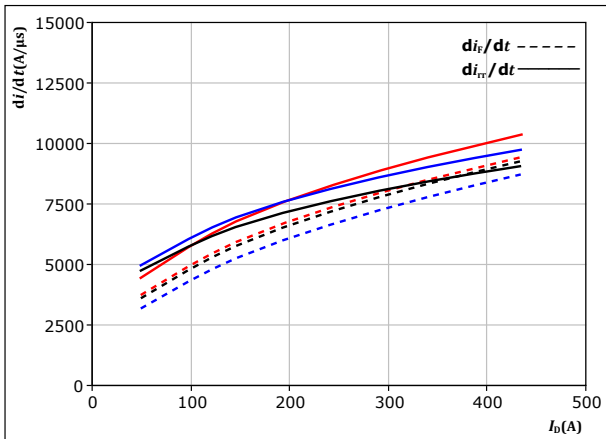
T_j : — 25 °C
 — 125 °C
 — 150 °C



Half-Bridge Switching Characteristics - Lo side

figure 23. MOSFET

Typical rate of fall of forward and reverse recovery current as a function of drain current
 $di_f/dt, di_{rr}/dt = f(I_D)$

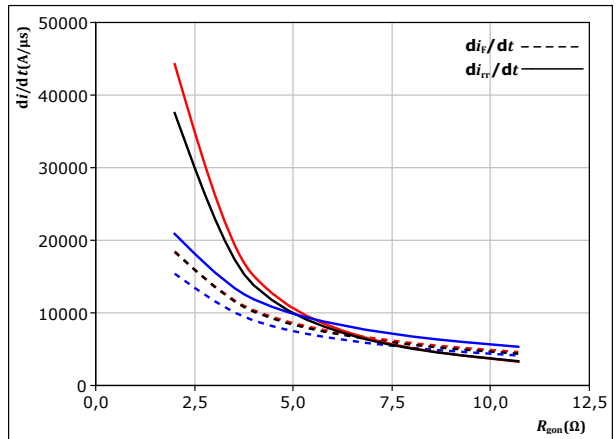


At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{g(on)} = 5,8$ Ω

T_j : 25 °C (blue)
 125 °C (black)
 150 °C (red)

figure 24. MOSFET

Typical rate of fall of forward and reverse recovery current as a function of turn on gate resistor
 $di_f/dt, di_{rr}/dt = f(R_{g(on)})$



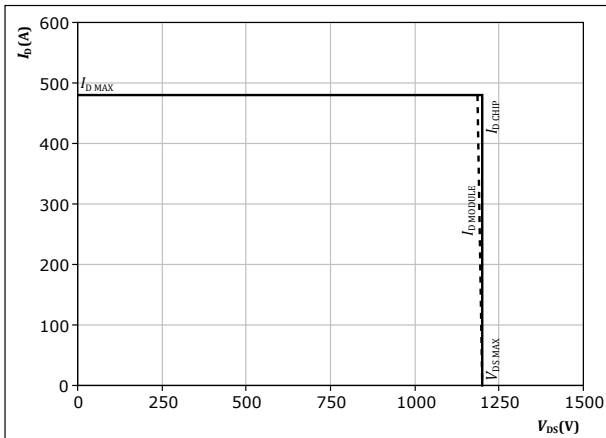
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

T_j : 25 °C (blue)
 125 °C (black)
 150 °C (red)

figure 25. MOSFET

Reverse bias safe operating area

$I_D = f(V_{DS})$



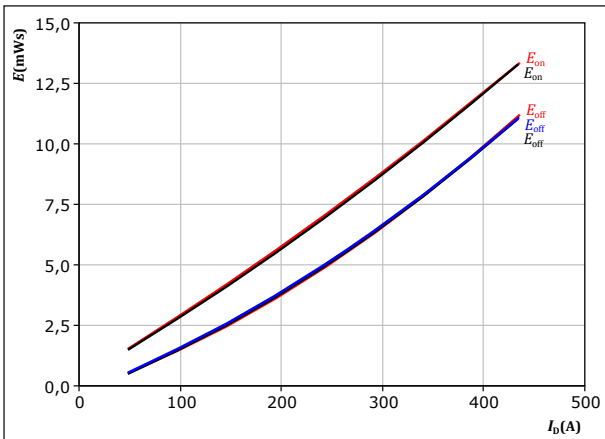
At $T_j = 150$ °C
 $R_{g(on)} = 5,8$ Ω
 $R_{g(off)} = 5,8$ Ω



Half-Bridge Switching Characteristics - Hi side

figure 26. MOSFET

Typical switching energy losses as a function of drain current
 $E = f(I_D)$

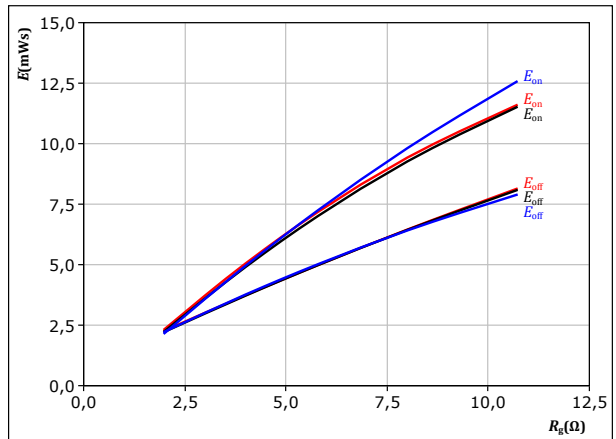


With an inductive load at

$V_{DS} =$	600	V	$T_j:$	— 25 °C
$V_{GS} =$	-4/15	V		— 125 °C
$R_{gon} =$	5,8	Ω		— 150 °C
$R_{goff} =$	5,8	Ω		

figure 27. MOSFET

Typical switching energy losses as a function of gate resistor
 $E = f(R_g)$

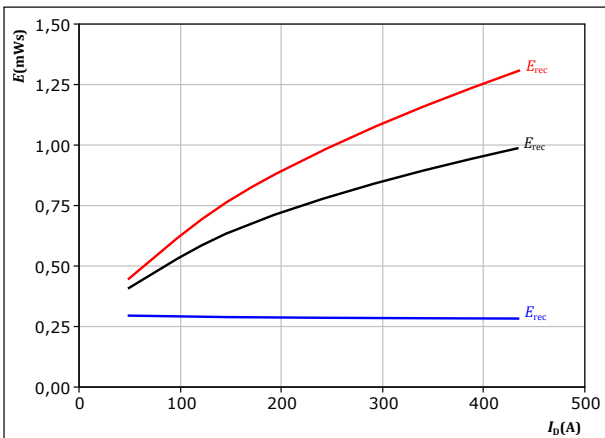


With an inductive load at

$V_{DS} =$	600	V	$T_j:$	— 25 °C
$V_{GS} =$	-4/15	V		— 125 °C
$I_D =$	240	A		— 150 °C

figure 28. MOSFET

Typical reverse recovered energy loss as a function of drain current
 $E_{rec} = f(I_D)$

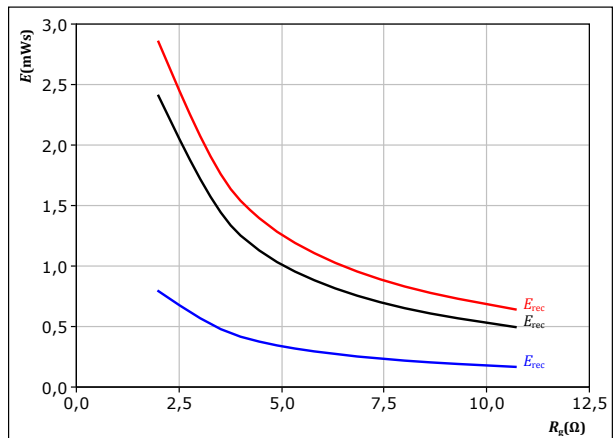


With an inductive load at

$V_{DS} =$	600	V	$T_j:$	— 25 °C
$V_{GS} =$	-4/15	V		— 125 °C
$R_{gon} =$	5,8	Ω		— 150 °C

figure 29. MOSFET

Typical reverse recovered energy loss as a function of gate resistor
 $E_{rec} = f(R_g)$



With an inductive load at

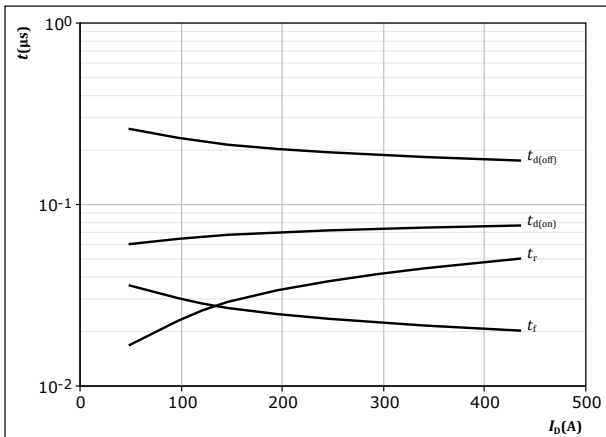
$V_{DS} =$	600	V	$T_j:$	— 25 °C
$V_{GS} =$	-4/15	V		— 125 °C
$I_D =$	240	A		— 150 °C



Half-Bridge Switching Characteristics - Hi side

figure 30. MOSFET

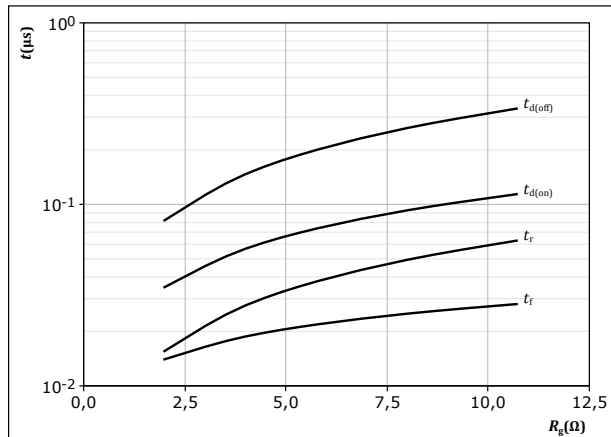
Typical switching times as a function of drain current
 $t = f(I_D)$



With an inductive load at
 $T_j = 150 \text{ }^\circ\text{C}$
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \text{ } \Omega$
 $R_{goff} = 5,8 \text{ } \Omega$

figure 31. MOSFET

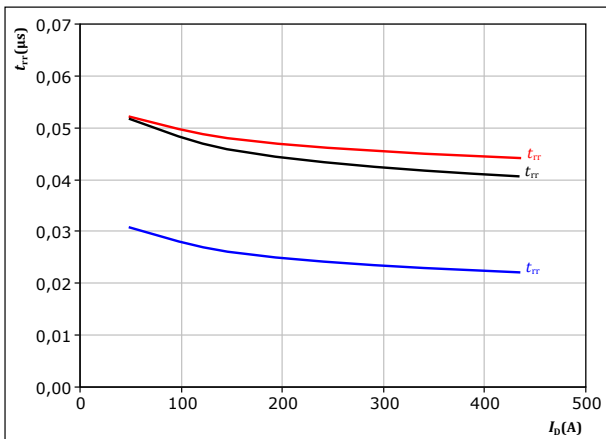
Typical switching times as a function of gate resistor
 $t = f(R_g)$



With an inductive load at
 $T_j = 150 \text{ }^\circ\text{C}$
 $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$

figure 32. MOSFET

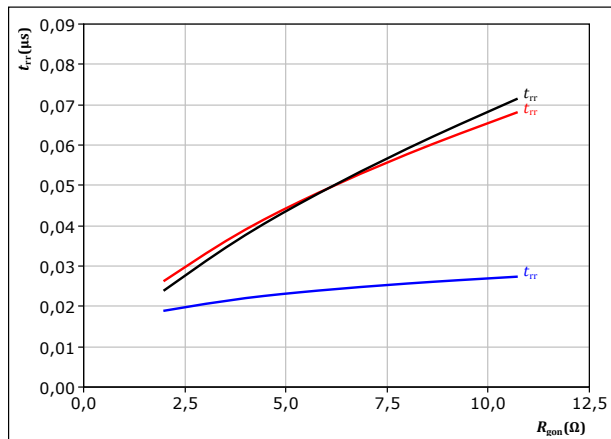
Typical reverse recovery time as a function of drain current
 $t_{rr} = f(I_D)$



At $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $R_{gon} = 5,8 \text{ } \Omega$
 T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 33. MOSFET

Typical reverse recovery time as a function of turn on gate resistor
 $t_{rr} = f(R_{gon})$



At $V_{DS} = 600 \text{ V}$
 $V_{GS} = -4/15 \text{ V}$
 $I_D = 240 \text{ A}$
 T_j : — 25 °C
 — 125 °C
 — 150 °C

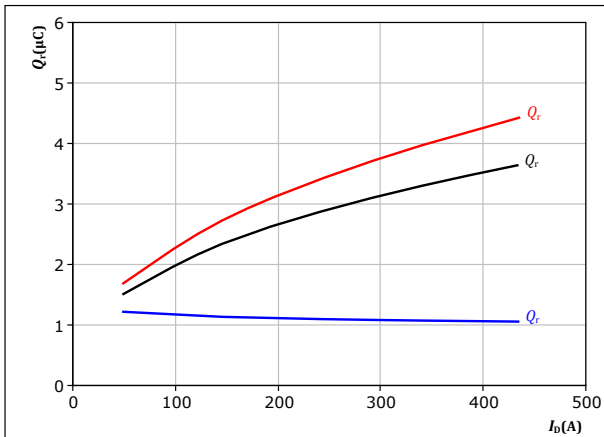


Half-Bridge Switching Characteristics - Hi side

figure 34. MOSFET

Typical recovered charge as a function of drain current

$$Q_r = f(I_D)$$



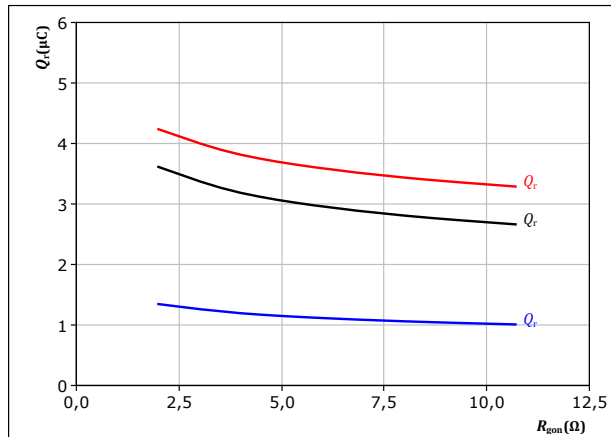
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{gon} = 5,8$ Ω

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 35. MOSFET

Typical recovered charge as a function of turn on gate resistor

$$Q_r = f(R_{gon})$$



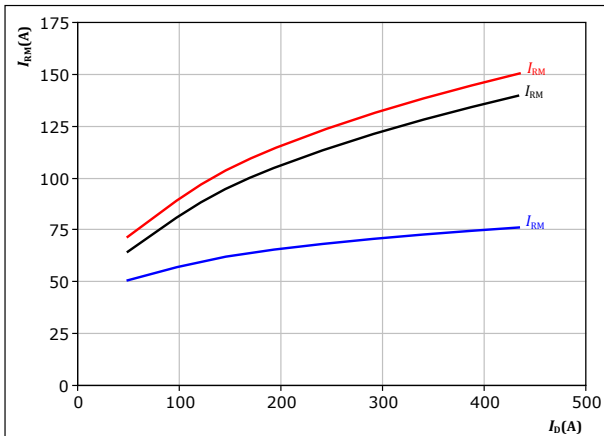
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 36. MOSFET

Typical peak reverse recovery current as a function of drain current

$$I_{RM} = f(I_D)$$



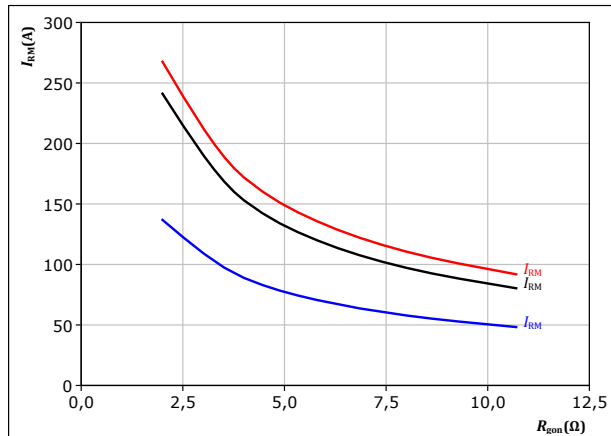
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{gon} = 5,8$ Ω

T_j : — 25 °C
 — 125 °C
 — 150 °C

figure 37. MOSFET

Typical peak reverse recovery current as a function of turn on gate resistor

$$I_{RM} = f(R_{gon})$$



At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

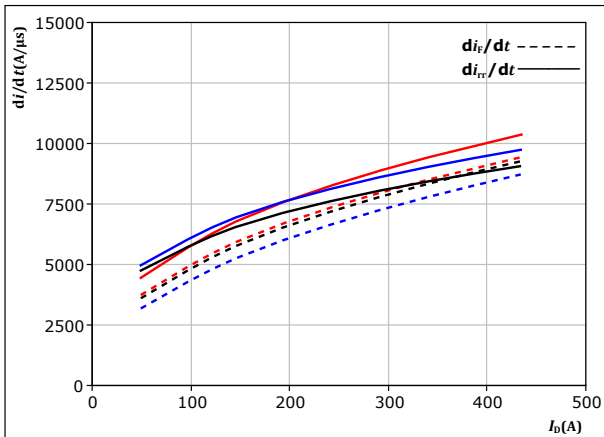
T_j : — 25 °C
 — 125 °C
 — 150 °C



Half-Bridge Switching Characteristics - Hi side

figure 38. MOSFET

Typical rate of fall of forward and reverse recovery current as a function of drain current
 $di_f/dt, di_{rr}/dt = f(I_D)$

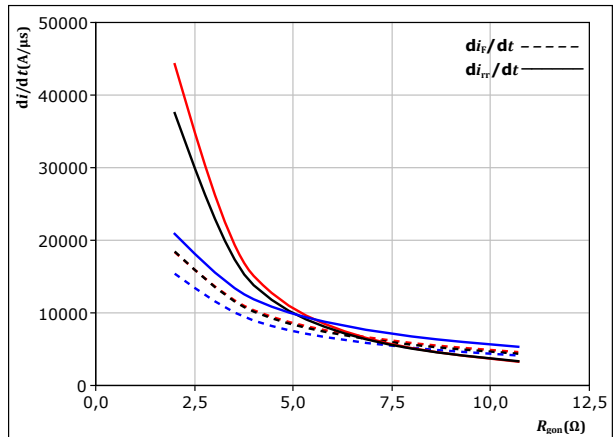


At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $R_{g(on)} = 5,8$ Ω

T_j : 25 °C (blue)
 125 °C (black)
 150 °C (red)

figure 39. MOSFET

Typical rate of fall of forward and reverse recovery current as a function of turn on gate resistor
 $di_f/dt, di_{rr}/dt = f(R_{g(on)})$



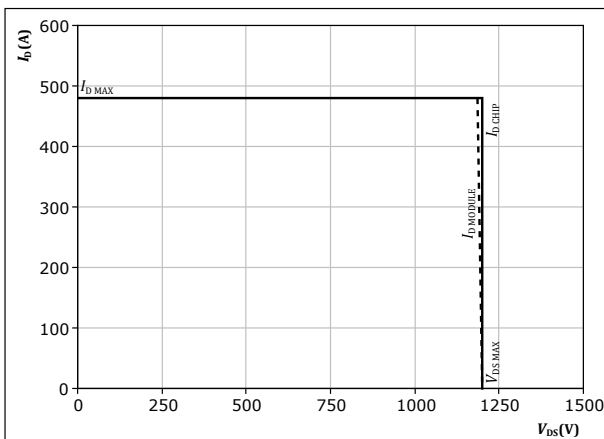
At $V_{DS} = 600$ V
 $V_{GS} = -4/15$ V
 $I_D = 240$ A

T_j : 25 °C (blue)
 125 °C (black)
 150 °C (red)

figure 40. MOSFET

Reverse bias safe operating area

$I_D = f(V_{DS})$



At $T_j = 150$ °C
 $R_{g(on)} = 5,8$ Ω
 $R_{g(off)} = 5,8$ Ω



Switching Definitions

figure 41. MOSFET

Turn-off Switching Waveforms & definition of t_{doff} , t_{Eoff} (t_{Eoff} = integrating time for E_{off})

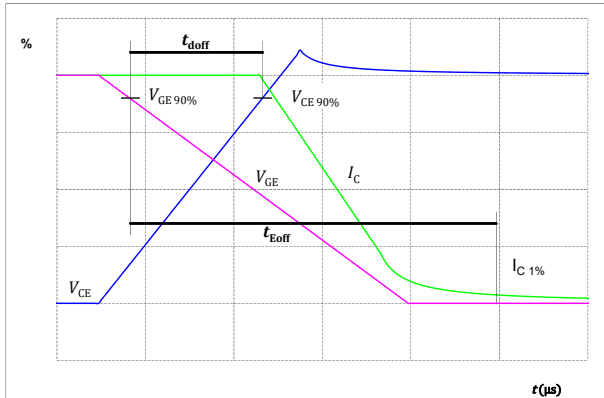


figure 42. MOSFET

Turn-on Switching Waveforms & definition of t_{don} , t_{Eon} (t_{Eon} = integrating time for E_{on})

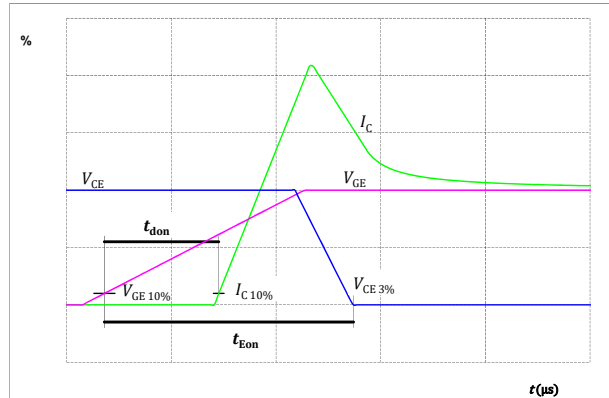


figure 43. MOSFET

Turn-off Switching Waveforms & definition of t_f

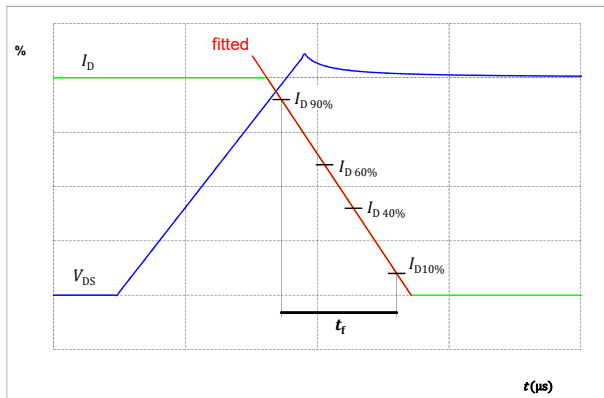
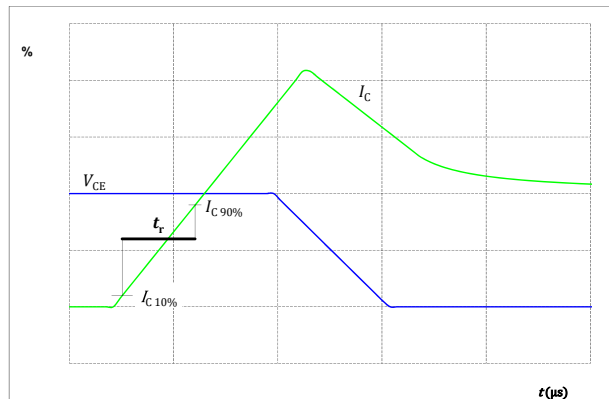


figure 44. MOSFET

Turn-on Switching Waveforms & definition of t_r





Switching Definitions

figure 45. FWD

Turn-off Switching Waveforms & definition of t_{tr}

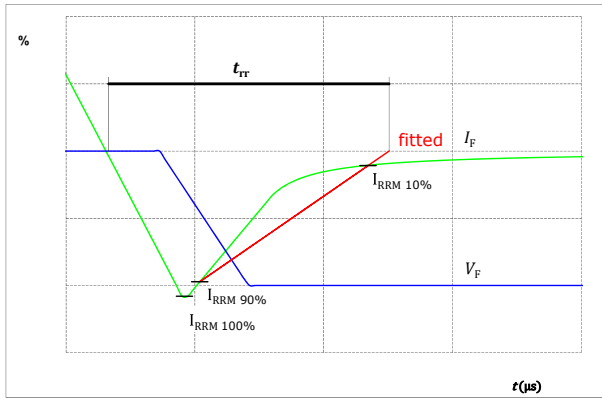


figure 46. FWD

Turn-on Switching Waveforms & definition of t_{Qr} (t_{Qr} = integrating time for Q_r)

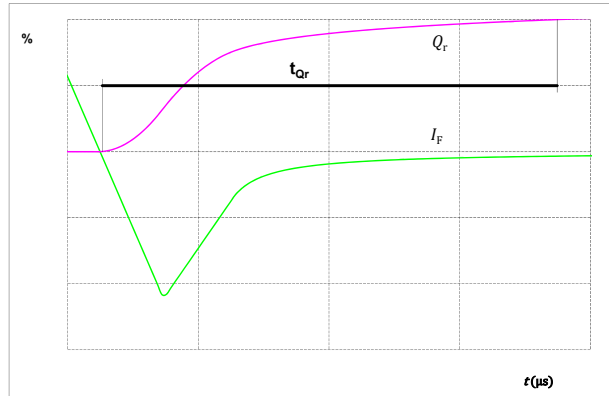
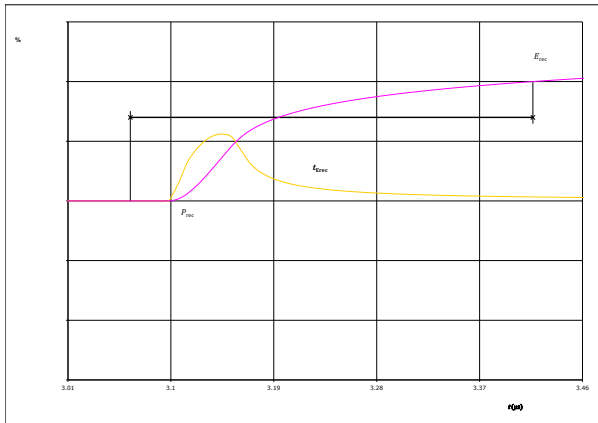


figure 47. FWD

Turn-on Switching Waveforms & definition of t_{Erec} (t_{Erec} = integrating time for E_{rec})






10-EY122PA005ME-LU39F08T

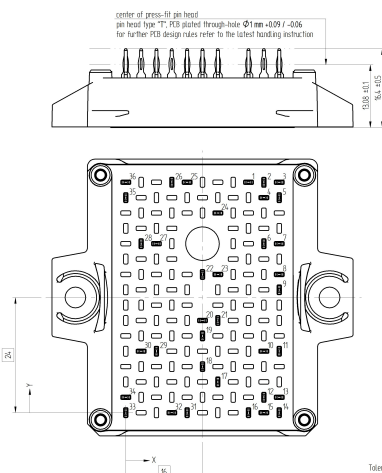
datasheet

Vincotech

Ordering Code	
Version	Ordering Code
Without thermal paste	10-EY122PA005ME-LU39F08T
With thermal paste	10-EY122PA005ME-LU39F08T-/3/

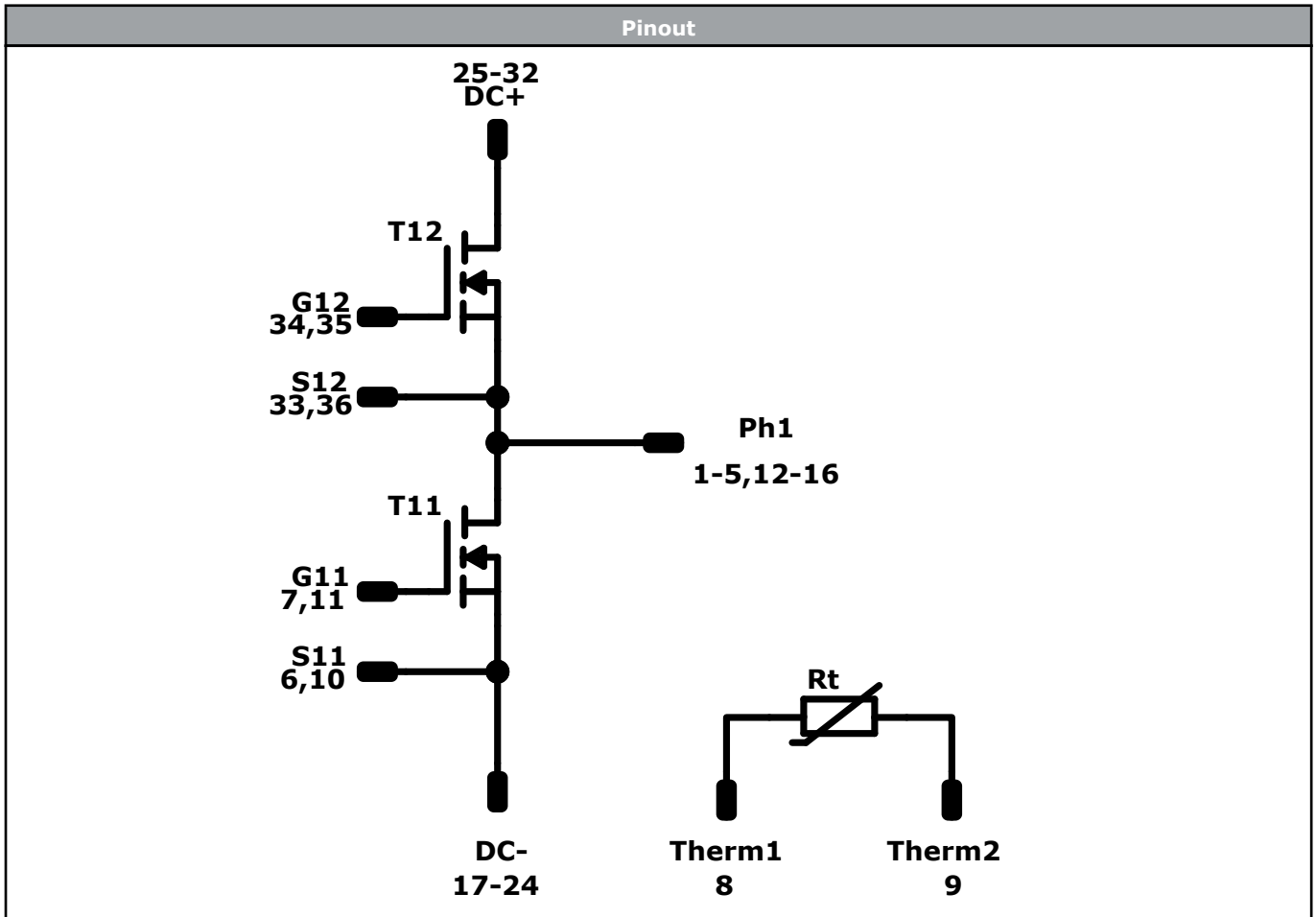
Marking						
	Text	Name NN-NNNNNNNNNNNNNN- TTTTTVV	Date code WWYY	UL & VIN UL VIN	Lot LLLLL	Serial SSSS
	Datamatrix	Type&Ver TTTTTTTV	Lot number LLLLL	Serial SSSS	Date code WWYY	

Outline				
Pin table [mm]				
Pin	X	Y	Function	
1	25,6	48	Ph1	
2	28,8	48	Ph1	
3	32	48	Ph1	
4	28,8	44,8	Ph1	
5	32	44,8	Ph1	
6	28,8	35,2	S11	
7	32	35,2	G11	
8	32	28,8	Therm1	
9	32	25,6	Therm2	
10	28,8	12,8	S11	
11	32	12,8	G11	
12	28,8	3,2	Ph1	
13	32	3,2	Ph1	
14	32	0	Ph1	
15	28,8	0	Ph1	
16	25,6	0	Ph1	
17	19,2	6,4	DC-	
18	16	9,6	DC-	
19	16	16	DC-	
20	16	19,2	DC-	
21	19,2	19,2	DC-	
22	16	28,8	DC-	
23	19,2	28,8	DC-	
24	19,2	41,6	DC-	
25	12,8	48	DC+	
26	9,6	48	DC+	
27	6,4	35,2	DC+	
28	3,2	35,2	DC+	
29	6,4	12,8	DC+	
30	3,2	12,8	DC+	
31	12,8	0	DC+	
32	9,6	0	DC+	
33	0	0	S12	
34	0	3,2	G12	
35	0	44,8	G12	
36	0	48	S12	



center of press-fit pin head
pin head type: TP, PCB plated through-hole $\Phi 1mm \pm 0.097 - 0.06$
for further PCB design rules refer to the latest handling instruction

Tolerance of positions: $\pm 0.4mm$ at the end of pins
Dimension of coordinate axis is only offset without tolerance



Identification					
ID	Component	Voltage	Current	Function	Comment
T11	MOSFET	1200 V	5,33 mΩ	Half-Bridge Switch - Lo side	
T12	MOSFET	1200 V	5,33 mΩ	Half-Bridge Switch - Hi side	
Rt	Thermistor			Thermistor	




Packaging instruction				
Standard packaging quantity (SPQ) 100	>SPQ	Standard	<SPQ	Sample

Handling instruction
Handling instructions for <i>flow</i> E2 packages see vincotech.com website.

Package data
Package data for <i>flow</i> E2 packages see vincotech.com website.

Vincotech thermistor reference
See Vincotech thermistor reference table at vincotech.com website.

UL recognition and file number
This device is certified according to UL 1557 standard, UL file number E192116. For more information see vincotech.com website. 

Document No.:	Date:	Modification:	Pages
10-EY122PA005ME-LU39F08T-D1-14	2 Oct. 2020		

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.