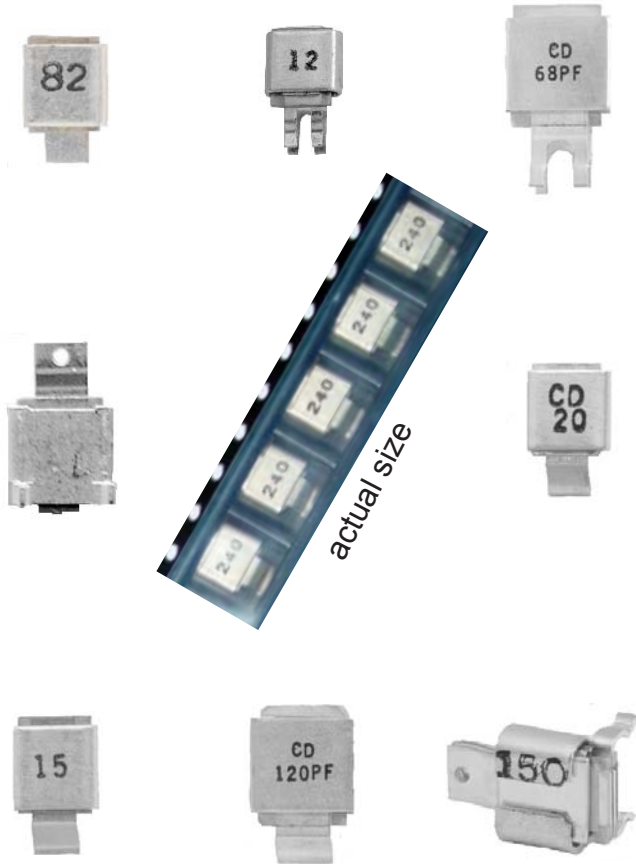


Types MCM and MIN SMT Clad RF Capacitors

Multilayer High Power, High Temperature Mica and Teflon® Capacitors



Types MCM and MIN SMT clad Teflon® and mica capacitors are top performers for high power applications requiring low inductance at high frequencies and can operate at temperatures up to 200 °C and voltages to 1000 Vdc. Choosing from 16 different configurations offers easy mounting with options for surface mount as well as through-hole and mechanical assembly. To assure high current capability in the smallest capacitors, low-capacitance ratings use Teflon® that has ultra-low dielectric absorption - better than polypropylene, polystyrene and NPO ceramic.

Highlights

- 200 °C rated with no voltage derating
- Wave solderable
- No cracking or delaminating
- CTE \approx 18 ppm/°C compatible with FR4 PCBs
- Highly thermal conductive package
- Gull-wing terminal minimizes stress
- Typical 100 pF ESR, <11 m Ω @ 100 MHz
- Nonmagnetic for minimal RF loss
- Very low ESL for excellent by-pass action
- Ultra stable: no change with (t), (V) and (f)
- Exact capacitance with tolerances from ± 0.25 pF
- RoHS Compliant

Specifications

Capacitance Range:	MCM	MIN
Voltage Ratings:	1 to 1500 pF	1 to 350 pF
Temperature Range:	300 to 1000 Vdc	300 Vdc
Capacitance Tolerance:	-55 °C to +200 °C with no voltage derating	
Dielectric Strength:	± 0.25 pF, ± 0.5 pF, ± 1 pF, $\pm 0.5\%$, $\pm 1\%$, $\pm 2\%$, $\pm 5\%$	
Insulation Resistance:	200% of rated voltage for 5 seconds	
Aging Rate:	1000 M Ω · μ F Need not exceed 100,000 M Ω at 25 °C	
Marking:	None	

MIN - Capacitance in pF and ID letters CD
MCM - Capacitance, ID letters CD and voltage if other than 500 when space permits
RoHS Compliant - marked in green ink

Applications

RF Power Amplifiers
Lasers
Mobile Radio
Plasma generators
MRI Coils
RF Medical Equipment
Automotive

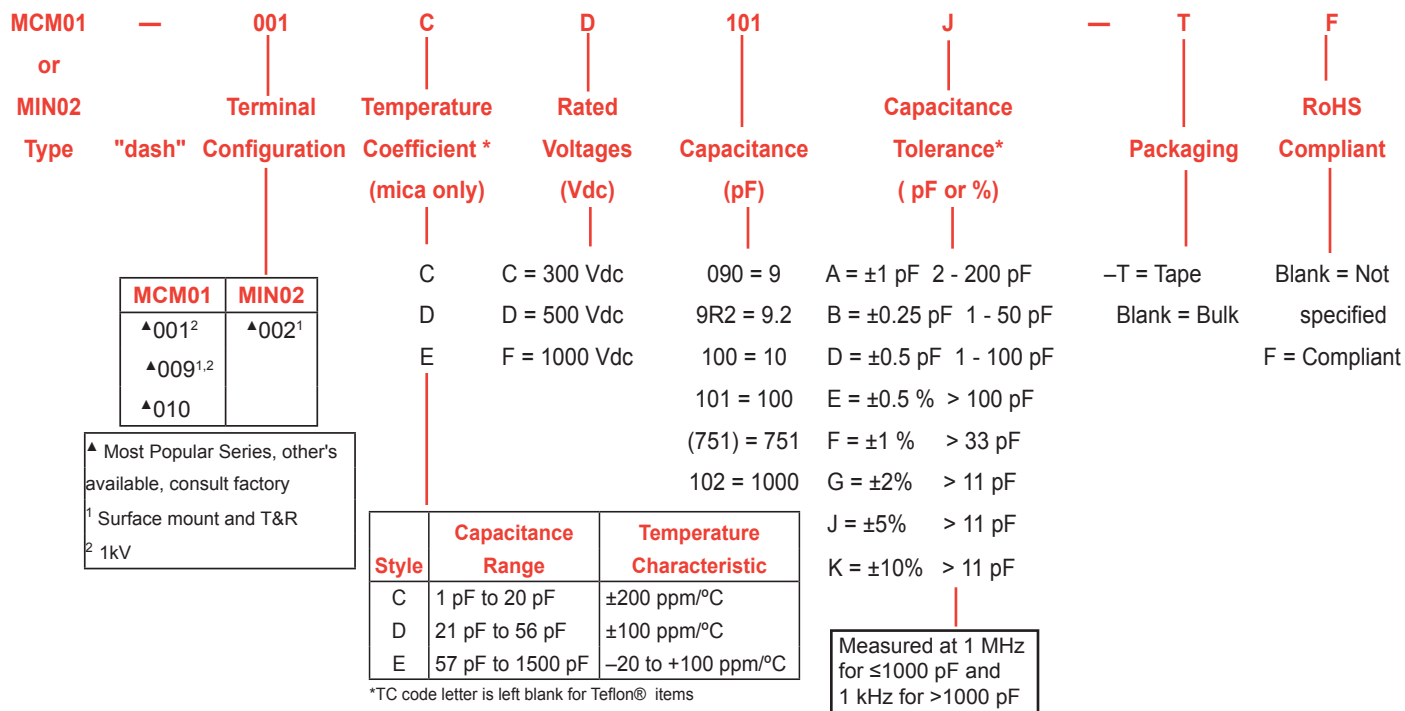
Types MCM and MIN SMT Clad RF Capacitors

Ratings Available

Capacitance (pF)	Voltage Ratings (Vdc)			Dielectric
	300	500	*1000	
MIN02				
1 - 9	X			Teflon®
10 - 60	X			Mica
61 - 120	X			Mica
121 - 180	X			Mica
181 - 240	X			Mica
241 - 300	X			Mica
301 - 350	X			Mica
MCM01				
1 - 7		X	X	Teflon®
8 - 32		X	X	Teflon® or Mica
33 - 250		X	X	Mica
251 - 500		X	X	Mica
501 - 750		X	X	Mica
751 - 1000		X		Mica
1001 - 1280		X		Mica
1281 - 1500	X			Mica

*1000 V available in MCM01-001 and -009 style

Part Numbering System

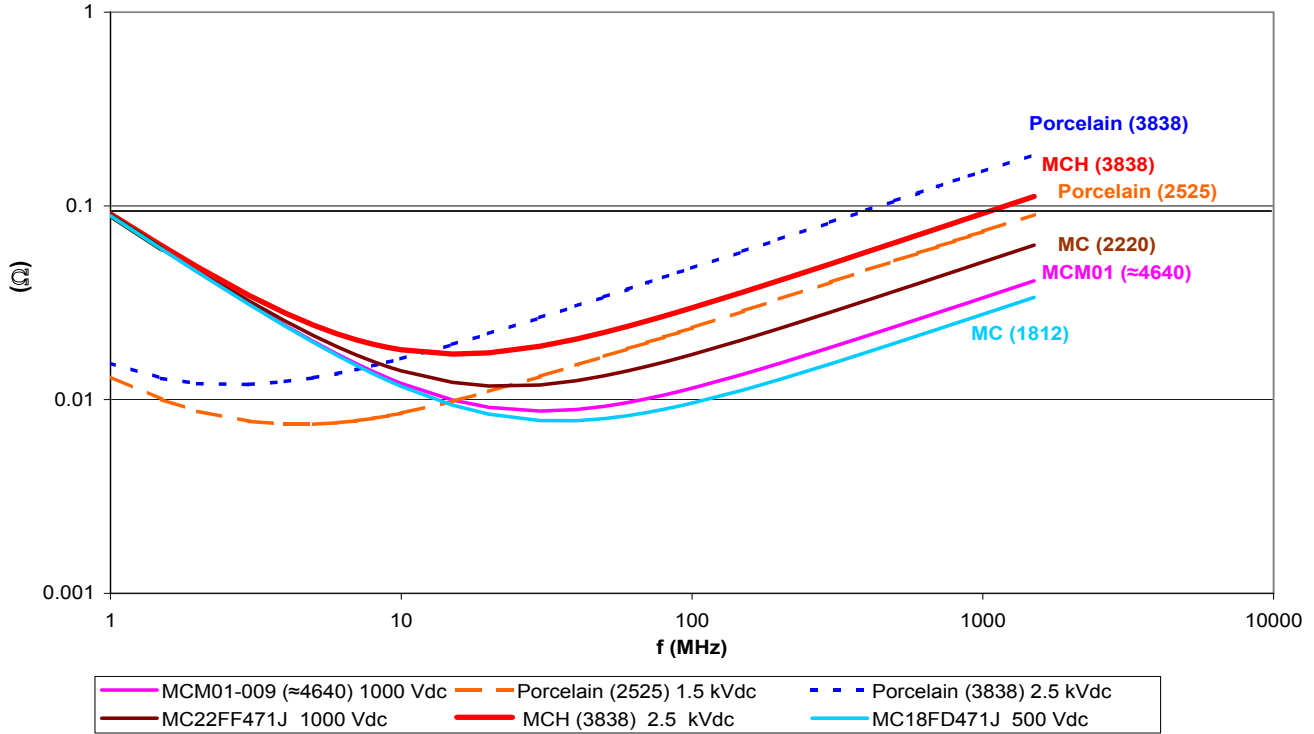


Types MCM and MIN SMT Clad RF Capacitors

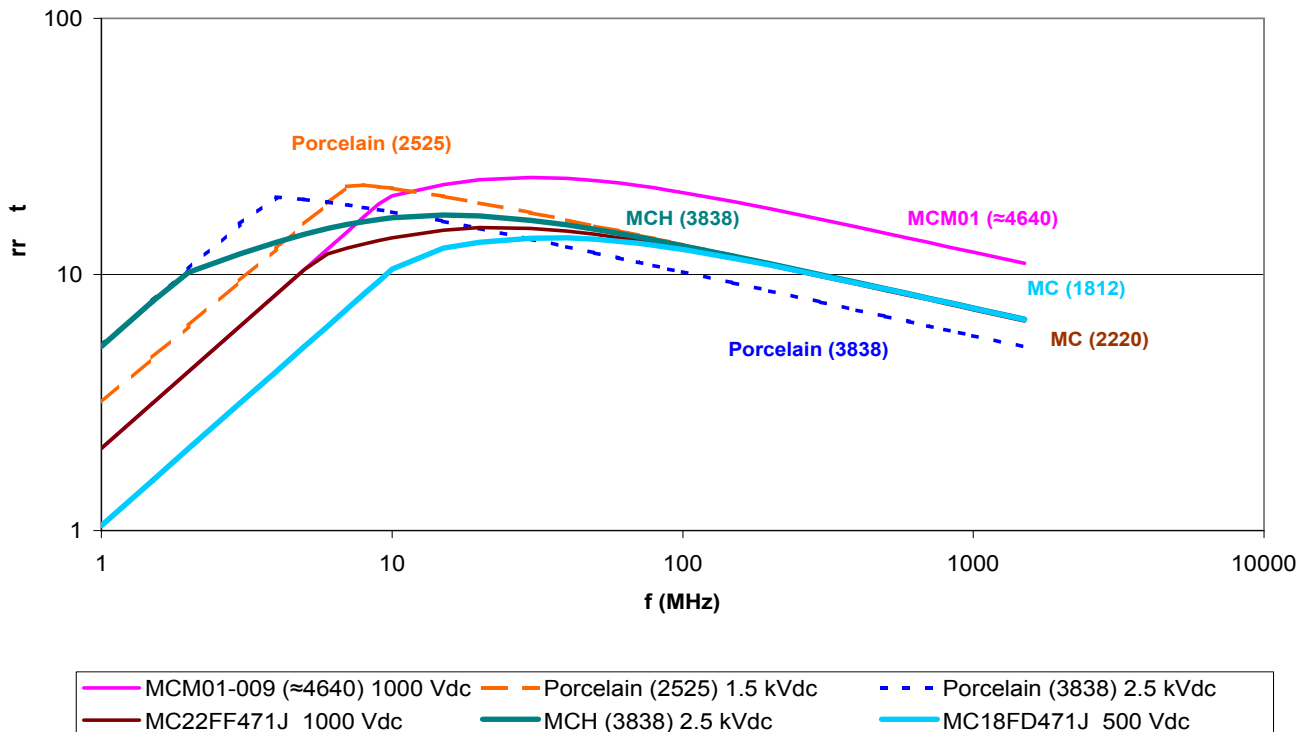
Typical Performance Data

[click here to see additional rating charts](#)

ESR vs. Frequency for 470 pF

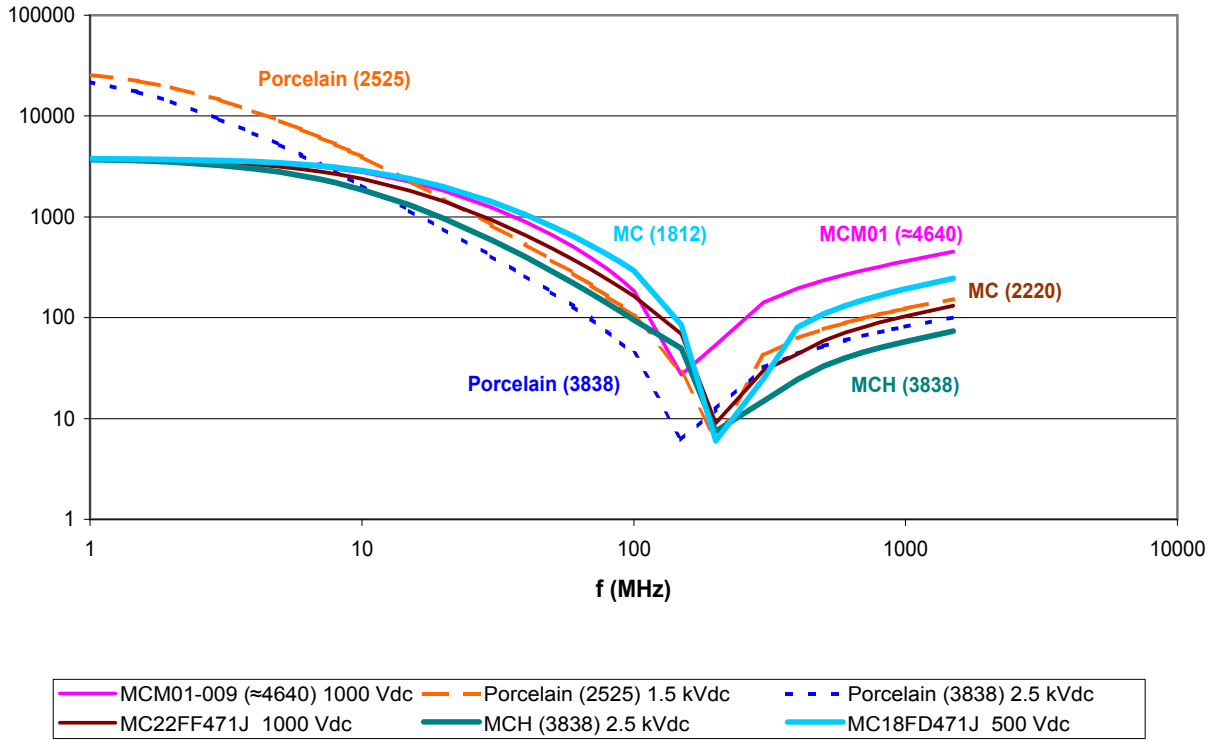


Current Rating (IRMS) for 470 pF at 60 °C Rise

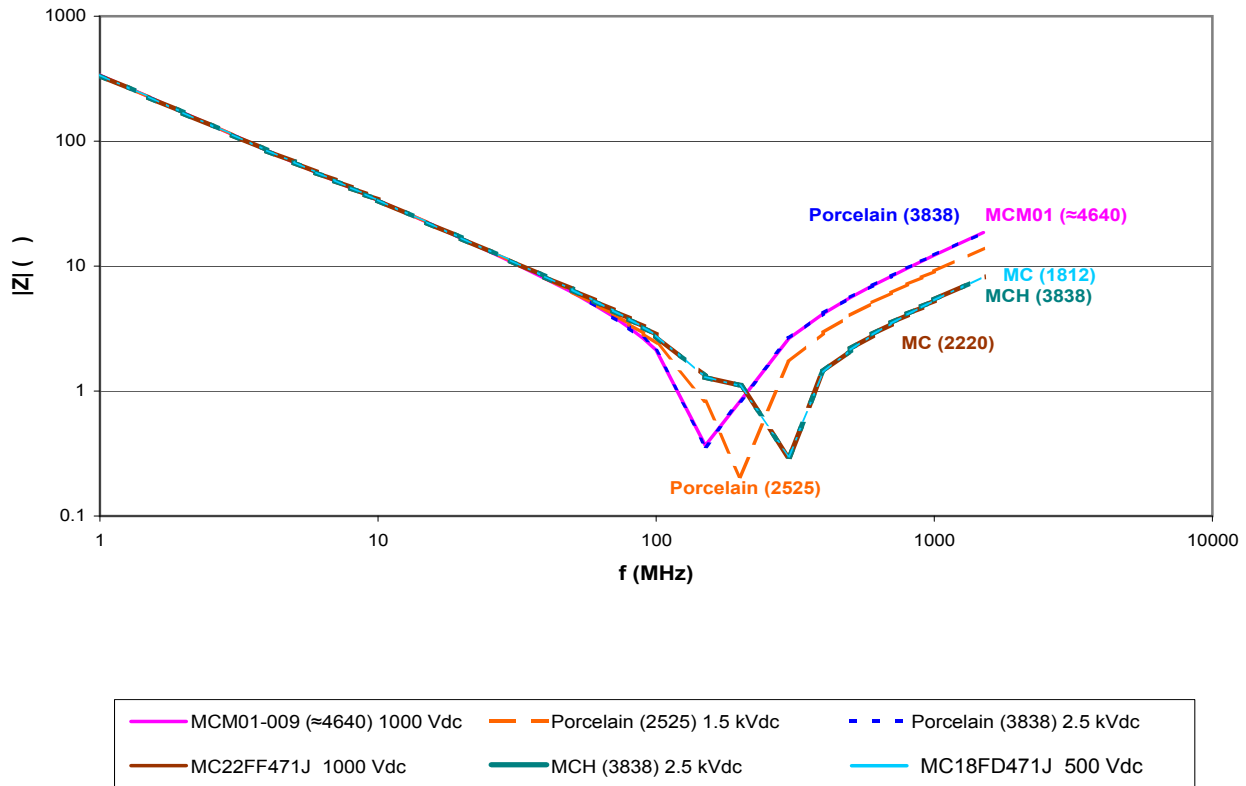


Types MCM and MIN SMT Clad RF Capacitors

Q vs. Frequency 470 pF @ 25 °C



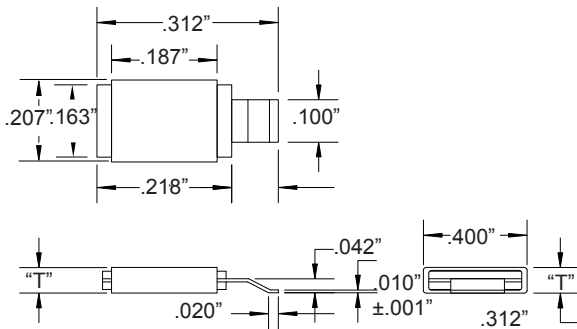
Impedance |Z| vs. Frequency for 470 pF @ 25 °C



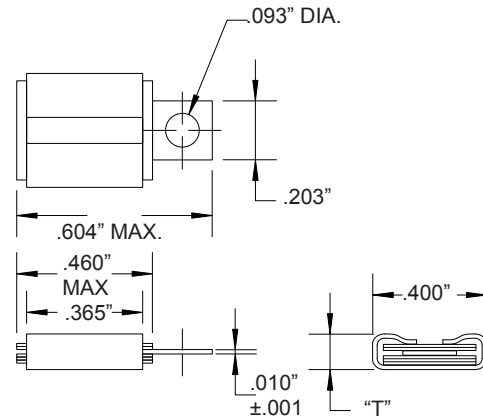
Types MCM and MIN SMT Clad RF Capacitors

Outline Drawings for Popular Items

MIN02-002



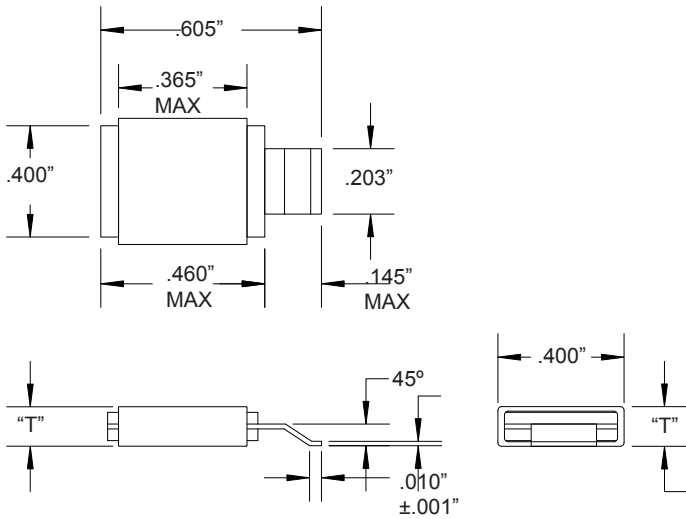
MCM01-001



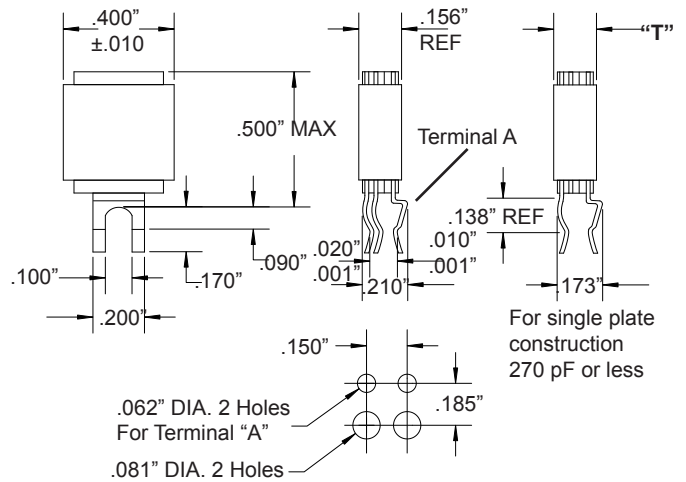
"T" (thickness) depending on capacitance value = .065 to .125±.015

"T" (thickness) depending on capacitance value = .110 to .165±.015

MCM01-009



MCM01-010



"T" (thickness) depending on capacitance value = .110 to .165±.015

"T" (thickness) depending on capacitance value = .110 to .165±.015

"T" varies with capacitance

Types MCM and MIN SMT Clad RF Capacitors

Standard Minimum Quantities

Bulk Pack: 100 pieces per bag

Reel Pack: 500 pieces per reel

Tape Specifications



Tape Dimensions (mm)						
Case	W	A	B	P1	F	t
MIN02-002 < 150 pF	16	5.56	8.18	8	7.5	2.16
MIN02-002 ≥ 150 pF	16	5.66	8.10	8	7.5	3.20

Note: 24 mm tape for MCM01-009 and 32 mm tape for MCM01-004 are available upon request.

Solder Profile

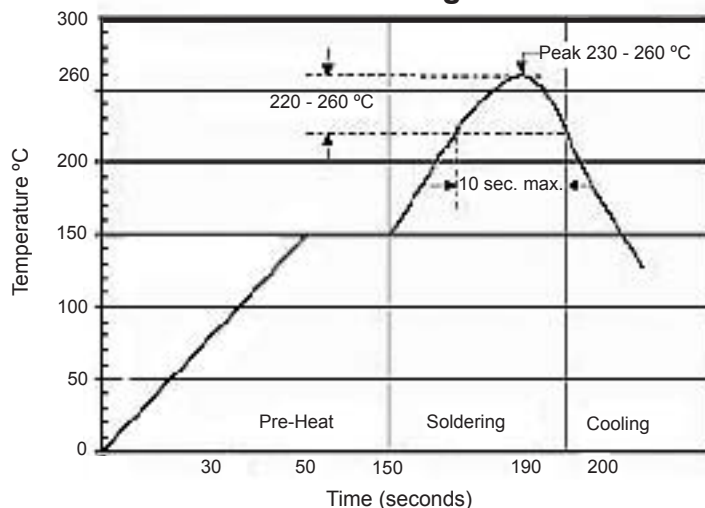
Specifications:

Lead free finish

Case and Terminal Material:

Silver plated, copper flashed, brass

Reflow Soldering Method



Wave Soldering Method

