

Distributed by:

JAMECO[®]
ELECTRONICS

www.Jameco.com ♦ 1-800-831-4242

The content and copyrights of the attached
material are the property of its owner.

Jameco Part Number 879730

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 2 to 24 circuits
- Available with voided circuits in various locations
- Optional continuous locking ramp on housings for up to 8 circuits; for housings with more than 8 circuits, ramp spans 4 circuits on each end
- Polarizing keys and pegs available
- Offset pin entry holes provide 180° polarization
- Side hook option available for panel mount applications (contact Molex)

Reference Information

Product Specification: PS-40-02

Packaging: Bag

UL File No.: E29179

CSA File No.: LR19980

TUV File No.: R75108

Mates With: Molex KK 3.96mm (.156") pitch headers or

1.14mm (.045") pins

Use With: 6438, 6838 and 7258 Trifurcon terminals

Designed In: Inches

Electrical

Voltage: 250V AC max.

Current: Phosphor Bronze—7.0A max.

Brass—5.0A max.

Contact Resistance: 6mΩ max.

Dielectric Withstanding Voltage: 1500V AC

Insulation Resistance: 50K MΩ min.

Mechanical

Contact Insertion Force: 1.8kg (4 lb)

Contact Retention to Housing: 3.6kg (8 lb)

Wire Pull-Out Force: 20 lb max./18 AWG

Mating Force: Square pin—2.25 lb max.

Round pin—1.60 lb max.

Unmating Force: Square pin—0.84 lb min.

Round pin—0.60 lb min.

Normal Force: 0.75kg (1.65 lb)

Physical

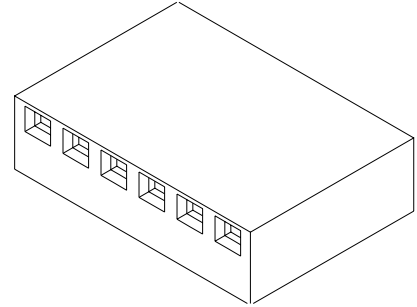
Housing: Nylon, UL 94V-2 (see 41695 for polyester, 94V-0)

Operating Temperature: 0 to +75°C

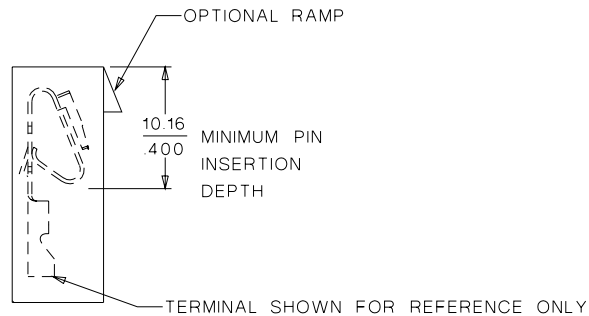
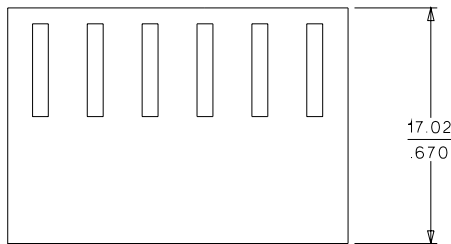
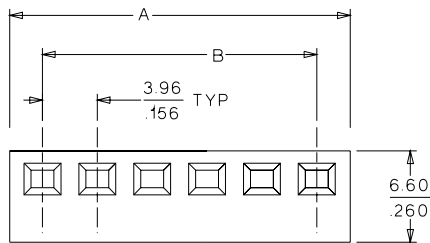
molex® 3.96mm (.156") Pitch KK® Crimp Terminal Housing

6442

Use with Trifurcon™ Terminals



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension	
	With Ramp	Without Ramp	A	B
2	• 26-03-4020	26-03-3021	8.74 (.344)	3.96 (.156)
3	• 26-03-4030	26-03-3031	12.70 (.500)	7.92 (.312)
4	• 26-03-4041	26-03-3041	16.66 (.656)	11.89 (.468)
5	• 26-03-4050	26-03-3051	20.62 (.812)	15.85 (.624)
6	• 26-03-4061	26-03-3061	24.59 (.968)	19.81 (.780)
7	• 26-03-4070	26-03-3071	28.55 (1.124)	23.77 (.936)
8	• 26-03-4081	26-03-3081	32.51 (1.280)	27.74 (1.092)
9	• 26-03-4090	26-03-3091	36.47 (1.436)	31.70 (1.248)
10	• 26-03-4101	26-03-3101	40.44 (1.592)	35.66 (1.404)
11	• 26-03-4111	26-03-3111	44.40 (1.748)	39.62 (1.560)
12	• 26-03-4121	26-03-3121	48.36 (1.904)	43.59 (1.716)
13	• 26-03-4131	26-03-3131	52.31 (2.060)	47.55 (1.872)

Circuits	Order No.		Dimension	
	With Ramp	Without Ramp	A	B
14	• 26-03-4141	26-03-3141	56.29 (2.216)	51.51 (2.028)
15	• 26-03-4151	26-03-3151	60.25 (2.372)	55.47 (2.184)
16	• 26-03-4161	26-03-3161	64.21 (2.528)	59.44 (2.340)
17	• 26-03-4171	26-03-3171	68.17 (2.684)	63.40 (2.496)
18	• 26-03-4181	26-03-3181	72.14 (2.840)	67.36 (2.652)
19	• 26-03-4191	26-03-3191	76.10 (2.996)	71.32 (2.808)
20	• 26-03-4201	26-03-3201	80.06 (3.152)	75.28 (2.964)
21	• 26-03-4211	26-03-3211	84.02 (3.308)	79.25 (3.120)
22	• 26-03-4221	26-03-3221	87.99 (3.464)	83.21 (3.276)
23	• 26-03-4231	26-03-3231	91.95 (3.620)	87.17 (3.432)
24	• 26-03-4241	26-03-3241	95.91 (3.776)	91.14 (3.588)

• US Standard Product, available through Molex franchised distributors



PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the 3.96 mm (.156 inch) centerline (pitch) Trifurcon Connectors terminated with 18 to 26 AWG wire using crimp technology when mated with 1.14mm (.045) square pin headers.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBERS

Crimp Terminals: 6838, 7258
Crimp Housings: 41695, 6442
Headers: 41771, 41772, 41791, 41792, 42471, 42472, 42491, 42492, 41661, 41662, 41671,
Other products conforming to this specification are noted on the individual drawings.

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Terminal Material: Brass or Phos. Bronze (for Max performance use phos bronze material.)
Housing: Nylon or Polyester
Pins: Brass or Phos. Bronze
For more information on dimensions, materials, and plating see the individual drawings.

2.3 SAFETY AGENCY APPROVALS

UL File Number E29179
CSALR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

None

4.0 RATINGS

4.1 VOLTAGE

250 Volts AC (RMS) {or 176 Volts DC}

4.2 CURRENT (Current is dependent on connector size, contact material, plating, ambient temperature, printed circuit board characteristics and related factors. Actual current rating is application dependent and should be evaluated for each application.)

Wire Awg	Amps (Max) With Brass	Amps (Max) With Phos Bronze	Wire Insulation Dia
18	5.00	7.00	See terminal drawings
20	4.75	6.25	See terminal drawings
22	4.50	5.50	See terminal drawings
24	4.25	5.00	See terminal drawings
26	4.00	4.50	See terminal drawings

4.3 TEMPERATURE (ambient + 30°C temp rise)

	Brass	Phos Bronze
Operating Temperature	0°C to +50°C	0°C to +75°C
Non Operating Temperature	-40°C to +105°C	-40°C to +105°C

REVISION: D	ECR/ECN INFORMATION: EC No: UCR2002-0299 DATE: 2001 / 09 / 24	TITLE: PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS Trifurcon Contacts	SHEET No. 1 of 4
DOCUMENT NUMBER: PS-40-02	CREATED / REVISED BY: SAMIEC	CHECKED BY: MUELLER	APPROVED BY: MARGULIS



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA.	6 milliohms MAXIMUM [initial]
Contact Resistance of Wire Termination (Low Level)	Terminate the applicable wire to the terminal and measure wire using a voltage of 20 mV and a current of 100 mA.	2 milliohms MAXIMUM [initial]
Insulation Resistance	Unmate & unmount connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	50 K Megohms MINIMUM
Dielectric Withstanding Voltage	Unmate connectors: apply a voltage of {two times the rated voltage plus 1000 volts} VAC for 1 minute between adjacent terminals and between terminals to ground.	No breakdown
Capacitance	Measure between adjacent terminals at 1 MHz.	1.2 picofarads MAXIMUM
Temperature Rise (via Current Cycling)	Mate connectors: measure the temperature rise at the rated current after: 1) 96 hours (steady state) 2) 240 hours (45 minutes ON and 15 minutes OFF per hour) 3) 96 hours (steady state)	Temperature rise: +30°C MAXIMUM

REVISION: D	ECR/ECN INFORMATION: EC No: UCR2002-0299 DATE: 2001 / 09 / 24	TITLE: PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS Trifurcon Contacts	SHEET No. 2 of 4
DOCUMENT NUMBER: PS-40-02	CREATED / REVISED BY: SAMIEC	CHECKED BY: MUELLER	APPROVED BY: MARGULIS



PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Connector Mate and Unmate Forces	Per circuit when mated to an .045 Sq. pin. Mate and unmate connector (male to female) at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch) per minute.	10.0 N (2.25 lbf) MAXIMUM insertion force & 3.7 N (0.84 lbf) MINIMUM withdrawal force
Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch). (Forces will change with platings and materials.)	17.8 N (4.0 lbf) MAXIMUM insertion force
Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch) per minute. (Forces will change with platings and materials.)	35.6 N (8.0 lbf) MINIMUM withdrawal force
Durability	Mate connectors up to 25 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
Shock (Mechanical)	Mate connectors and shock at 50 g's with $\frac{1}{2}$ sine wave (11 milliseconds) shocks in the $\pm X, \pm Y, \pm Z$ axes (18 shocks total).	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch). (For maximum performance use molex application tooling with stranded tinned copper wire)	18 awg = 89 N (20 lbf) 20 awg = 66 N (15 lbf) 22 awg = 53 N (12 lbf) 24 awg = 35 N (8 lbf) 26 awg = 22 N (5 lbf)
Normal Force	Apply a perpendicular force.	7.34 N (748 grams) average

REVISION: D	ECR/ECN INFORMATION: EC No: UCR2002-0299 DATE: 2001 / 09 / 24	TITLE: PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS Trifurcon Contacts	SHEET No. 3 of 4
DOCUMENT NUMBER: PS-40-02	CREATED / REVISED BY: SAMIEC	CHECKED BY: MUELLER	APPROVED BY: MARGULIS



PRODUCT SPECIFICATION

5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT										
Shock (Thermal)	Mate connectors; expose to 5 cycles of: <table border="1"> <thead> <tr> <th>Temperature °C</th> <th>Duration (Minutes)</th> </tr> </thead> <tbody> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> </tbody> </table>	Temperature °C	Duration (Minutes)	-40 +0/-3	30	+25 ±10	5 MAXIMUM	+105 +3/-0	30	+25 ±10	5 MAXIMUM	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Temperature °C	Duration (Minutes)											
-40 +0/-3	30											
+25 ±10	5 MAXIMUM											
+105 +3/-0	30											
+25 ±10	5 MAXIMUM											
Thermal Aging	Mate connectors; expose to: 96 hours at 105 ± 2°C	10 milliohms MAXIMUM (change from initial]) & Visual: No Damage										
Humidity (Steady State)	Mate connectors: expose to a temperature of 40 ± 2°C with a relative humidity of 90-95% for 96 hours. Note: Remove surface moisture and air dry for 1 hour prior to measurements.	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Solderability	Per SMES-152	Solder coverage: 95% MINIMUM (per SMES-152)										
Solder Resistance	Dip connector terminal tails in solder: Solder Duration: 5 ± 0.5 seconds; Solder Temperature: 230 ± 5°C	Visual: No Damage to insulator material										
Salt Spray	Mate connectors: Duration: 48 hours exposure; Atmosphere: salt spray from a 5% solution; Temperature: 35 +1/-2°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage										

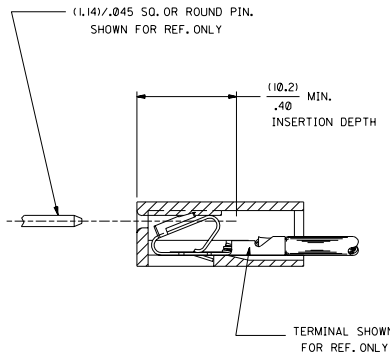
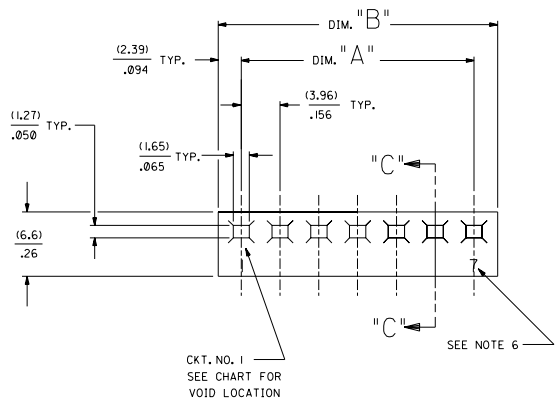
6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

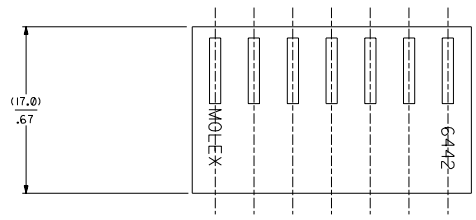
7.0 GAGES AND FIXTURES

8.0 OTHER INFORMATION

REVISION: D	ECR/ECN INFORMATION: EC No: UCR2002-0299 DATE: 2001 / 09 / 24	TITLE: PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS Trifurcon Contacts	SHEET No. 4 of 4
DOCUMENT NUMBER: PS-40-02	CREATED / REVISED BY: SAMIEC	CHECKED BY: MUELLER	APPROVED BY: MARGULIS



SECTION "C-C"



NO. OF CKT'S.	DIM. A	DIM. B
1	-----	(4.78+.18)
2	(3.96+.13)	.188+.007
	.156+.005	.344+.007
3	(7.92+.13)	(8.74+.18)
	.312+.005	.500+.007
4	(11.89+.13)	(12.70+.18)
	.468+.005	.656+.007
5	(15.85+.13)	(16.66+.18)
	.624+.005	.812+.007
6	(19.81+.13)	(20.62+.18)
	.780+.005	.968+.007
7	(23.77+.13)	(24.59+.18)
	.936+.005	1.124+.007
8	(27.74+.25)	(28.55+.18)
	1.092+.010	1.280+.012
9	(31.70+.25)	(32.51+.30)
	1.248+.010	1.436+.012
10	(35.66+.25)	(36.47+.30)
	1.404+.010	1.592+.012
11	(39.62+.25)	(40.44+.30)
	1.560+.010	1.748+.012
12	(43.59+.25)	(44.40+.30)
	1.716+.010	1.904+.012
13	(47.55+.30)	(48.36+.30)
	1.872+.012	2.060+.014
14	(51.51+.36)	(52.32+.36)
	2.028+.014	2.216+.016
15	(55.47+.36)	(56.29+.41)
	2.184+.014	2.372+.016
16	(59.44+.36)	(60.25+.41)
	2.340+.014	2.528+.016
17	(63.40+.36)	(64.21+.41)
	2.496+.014	2.684+.016
18	(67.36+.36)	(68.17+.41)
	2.652+.014	2.840+.016
19	(71.32+.36)	(72.14+.41)
	2.808+.014	2.996+.016
20	(75.29+.46)	(76.10+.41)
	2.964+.018	3.152+.020
21	(79.25+.46)	(80.06+.51)
	3.120+.018	3.308+.020
22	(83.21+.46)	(84.02+.51)
	3.276+.018	3.464+.020
23	(87.17+.46)	(87.99+.51)
	3.432+.018	3.620+.020
24	(91.14+.46)	(91.95+.51)
	3.588+.018	3.776+.020

- NOTES :
- HOUSING SHOWN ABOVE IS STANDARD HOUSING WITH NO OPTIONS.
 - THIS HOUSING FOR USE WITH TERMINAL NO. 6438-*, (18-22 GA.) WITH (2.79/.110) MAX. INSULATION DIA. 6838-*, (18-24 GA.) WITH (2.79/.110) MAX. INSULATION DIA. 7258-*, (22-26 GA.) WITH (1.65/.065) MAX. INSULATION DIA.
 - CIRCUIT SIZE MOLDED ON 4 THRU 24 CIRCUIT HOUSINGS ONLY.
 - SEE SHEET 2 FOR OPTIONS.
 - THIS PART COMPLIES WITH PROD. SPEC. 40-02.
 - MATERIAL: SEE LEGEND FOR MATERIAL CODE.

6442- * N - * - * - *

HOUSING OPTIONS

CODE	HOOKS	SIDE HOOKS	RAMP
BLANK	NONE	NONE	NONE
A	NONE	YES	NONE
R	NONE	NONE	FRICTION
B	NONE	NONE	TYPE B
C	NONE	NONE	TYPE C
D	NONE	NONE	TYPE D

VOLTAGE RATING OPTION
BLANK=NONE
V= *250 VAC* ON HOUSING

MAT'L. OPTION
BLANK=NYLON 6/6, 94V-2.

MOLDED VOID CODE
Z=NO VOIDS
A=CKT. 1 VOID,
B=CKT. 2 VOID, ETC.
5=1ST MULTIPLE VOID,
52=2ND MULTIPLE VOID, ETC.

NO. OF CKT'S.

4	G4	DELETE DYED PARTS
3	H	UCP2003-5590
2	F	BY 52/23 SCHAFER
1	H	G4 DEL UNTOOLED
		UCP2003-0794
		11/12/2005 SAMIEC

MFG. SH. REV. LTR. REVISIONS

DIMENSIONS SHOWN METRIC INCH

SCALE: 1" = 1" (1:1)

TITLE: HOUSING, FOR TRIFURCON TERM., (3.96) / .156

6442 SERIES DWG.

MOLEX INCORPORATED

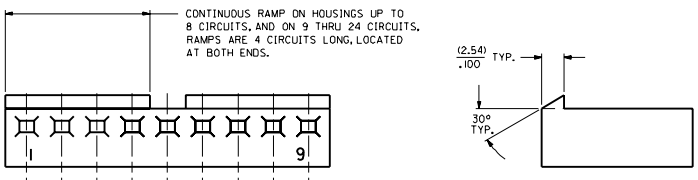
DATE: 12 / 3 / 86

SHEET NO. 1 OF 4

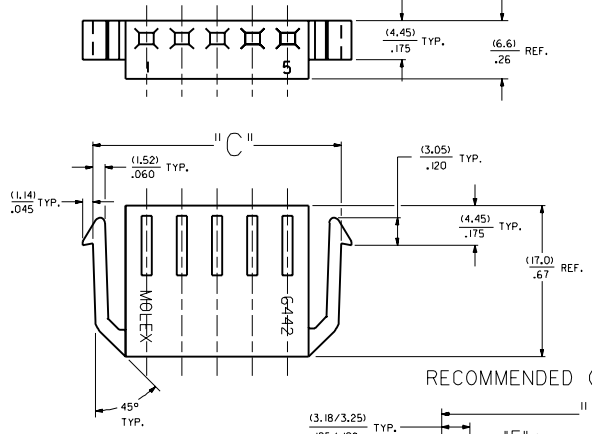
SEE CHART SD-6442

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

NO. OF CKT'S.	DIM. "C"	DIM. "D"
2	(16.48/15.60) .649/.614	(15.47/15.34) .609/.604
3	(20.45/19.56) .805/.770	(19.43/19.30) .765/.760
5	(28.37/27.48) L117/1.082	(27.36/27.23) L077/1.072

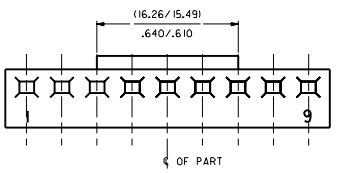
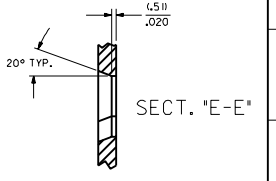


STD. RAMP OPTION CODE "R"

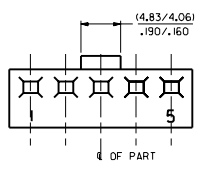


SIDE HOOKS
OPTION CODE "A"

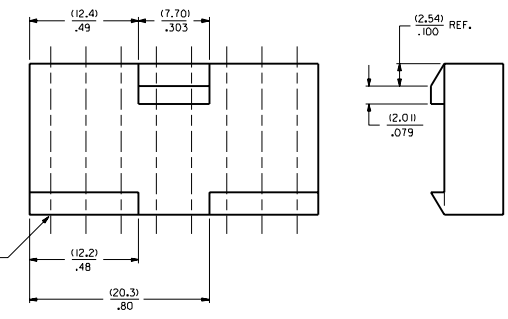
RECOMMENDED (2.03)/.080 THICK PANEL OPENING.



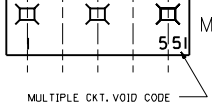
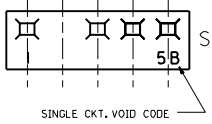
SELECTIVE RAMP
OPTION CODE "C"



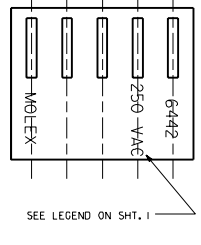
SELECTIVE RAMP
OPTION CODE "B"



SELECTIVE RAMP OPTION CODE "D"
INTERNATIONAL PART ONLY
(8 CKT. PART ONLY)



MOLDED VOIDS
SEE LEGEND ON SHT. 1
SEE CHART FOR VOID CKT. LOCATIONS



OPT. VOLTAGE RATING

REVISIONS				REVISIONS				REVISIONS				REVISIONS			
SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1	SEE SHEET 1		
LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.	LTR.		

DRAWING DATA		TITLE		REVISE ONLY ON CAD SYSTEM	
DATE	ISSUE	NO.	DATE	DESCRIPTION	BY
11/11/85	1	1	11/11/85	HOUSING, FOR TRIFURCON TERM., 6442 SERIES DWG.	KK
MATERIAL		PART NO.		DWG. NO.	
POLYCAR		SD-6442		12 / 5/86	
SCALE		DATE		BY	
1:1		11/11/85		KK	

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

