



THE DATASHEET OF ER3M-TP



Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Super Fast Recovery Times For High Efficiency
- Halogen Free. "Green" Device (Note 2)

Maximum Ratings

- Operating Junction Temperature Range: -50°C to +175°C
- Storage Temperature Range: -50°C to +175°C
- Typical Thermal Resistance: 13°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ER3A	ER3A	50V	35V	50V
ER3B	ER3B	100V	70V	100V
ER3C	ER3C	150V	105V	150V
ER3D	ER3D	200V	140V	200V
ER3G	ER3G	400V	280V	400V
ER3J	ER3J	600V	420V	600V
ER3K	ER3K	800V	560V	800V
ER3M	ER3M	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	3.0A	$T_L=125^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	100A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	0.95V 1.25V 1.70V	$I_{FM}=3.0A$; $T_J=25^\circ\text{C}^*$
ER3A-ER3D			
ER3G			
ER3J-ER3M			
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μA 200 μA	$T_J=25^\circ\text{C}$; $T_J=100^\circ\text{C}$
Maximum Reverse Recovery Time	T_{RR}	35ns 75ns	$I_F=0.5A$; $I_R=1.0A$; $I_{rr}=0.25A$
ER3A~ER3J			
ER3K~ER3M			
Typical Junction Capacitance	C_J	45pF	Measured at 1.0MHz $V_R=4.0V$

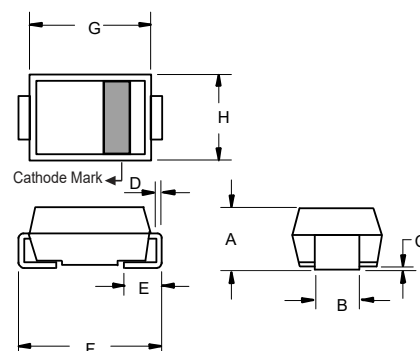
*Pulse Test: Pulse Width 300 μsec , Duty Cycle 2%

Note

1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

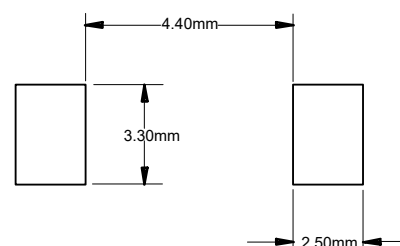
3 Amp Super Fast Recovery Silicon Rectifier 50 to 1000 Volts

SMC (DO-214AB)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

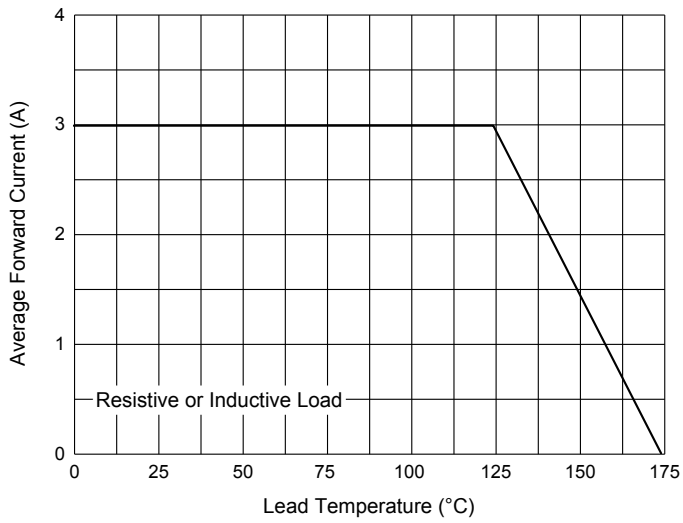


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

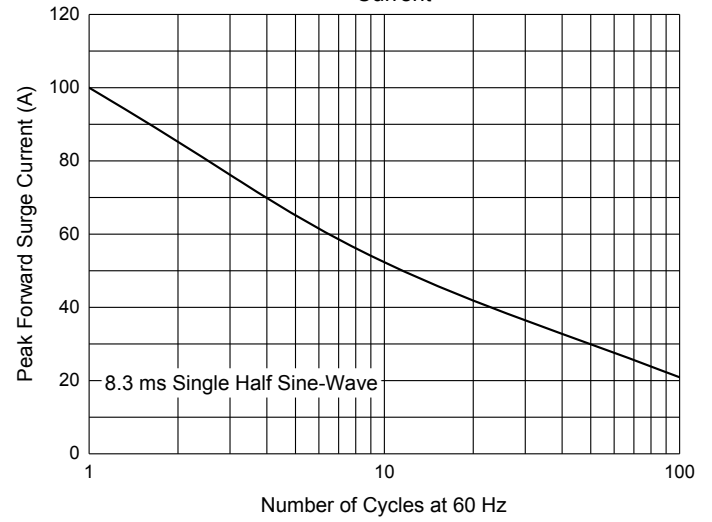


Fig. 3 - Typical Instantaneous Forward Characteristics

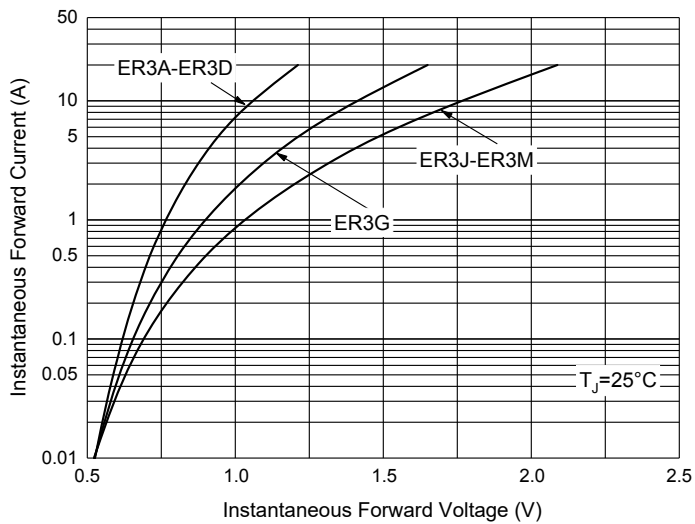
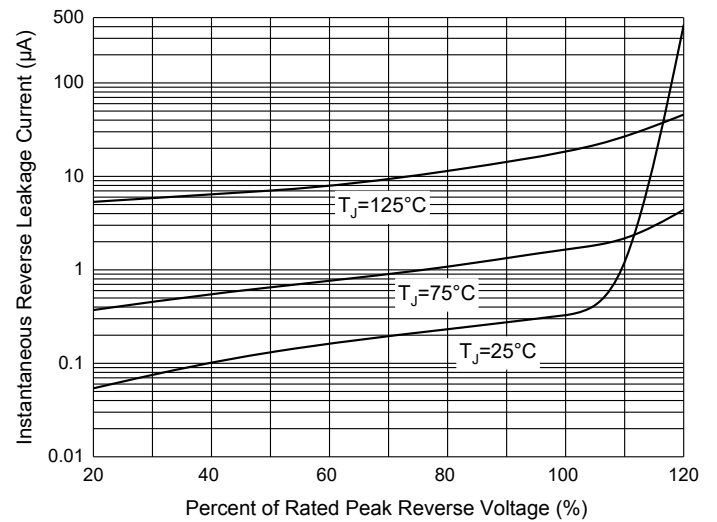


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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