Features

- High Surge Current Capability
- Halogen Free. “Green” Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

5 Amp Ultra Fast Rectifier 50 to 1000 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55ºC to +150ºC
- Storage Temperature Range: -55ºC to +150ºC
- Typical Thermal Resistance(Note 3): 13°C/W Junction to Lead
- Typical Thermal Resistance(Note 3): 47°C/W Junction to Ambient

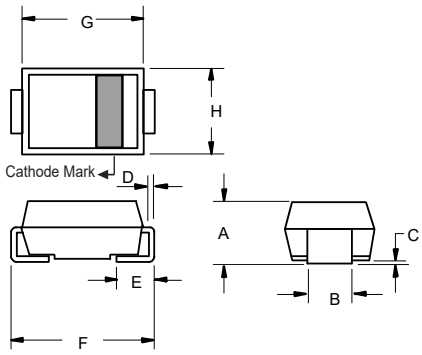
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
US5A	US5A	50V	35V	50V
US5B	US5B	100V	70V	100V
US5D	US5D	200V	140V	200V
US5F	US5F	300V	210V	300V
US5G	US5G	400V	280V	400V
US5J	US5J	600V	420V	600V
US5K	US5K	800V	560V	800V
US5M	US5M	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	T_L=75ºC
Peak Forward Surge Current	I_{FSM}	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage US5A-US5D US5F-US5G US5J-US5M	V_F	1.0V 1.3V 1.7V	I_F=5.0A; T_A=25ºC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5μA 200μA	T_A=25ºC; T_A=100ºC
Maximum Reverse Recovery Time US5A~US5G US5J~US5M	T_{RR}	50ns 75ns	I_F=0.5A; I_R=1.0A; Irr=0.25A

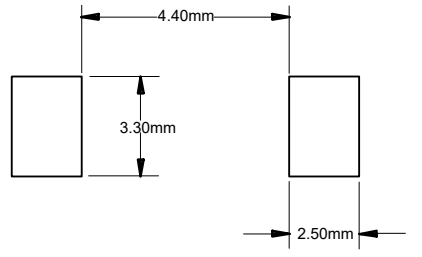
Note:
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.
3. Thermal Resistance From Junction to Ambient and From Junction to Lead Mounted on P.C.B. With 0.3"x0.3"(8.0mm x 8.0mm) Copper Pad Areas.

SMC (DO-214AB)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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

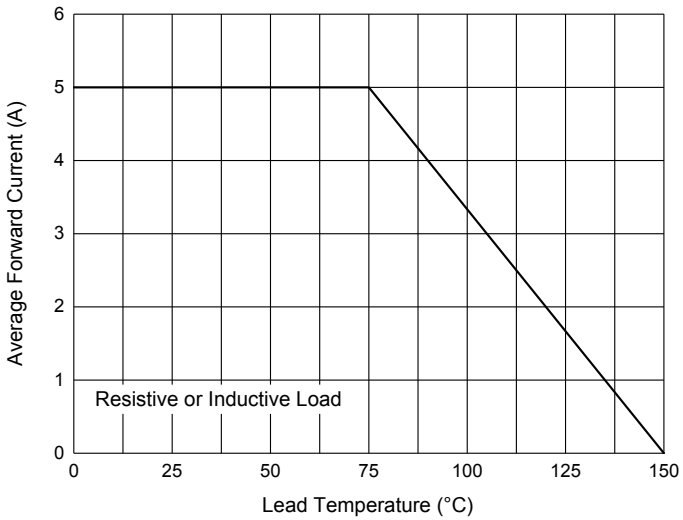


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

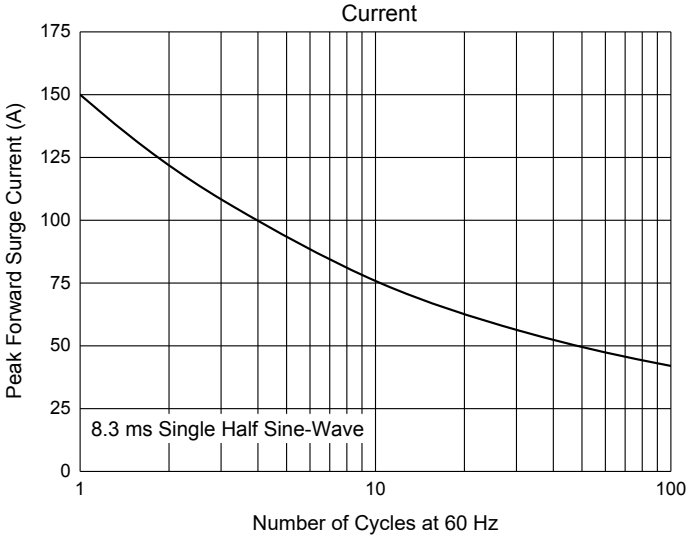


Fig. 3 - Typical Instantaneous Forward Characteristics

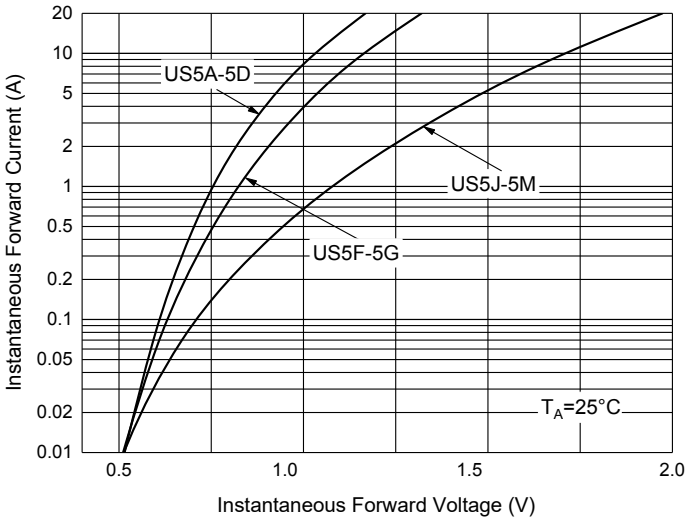
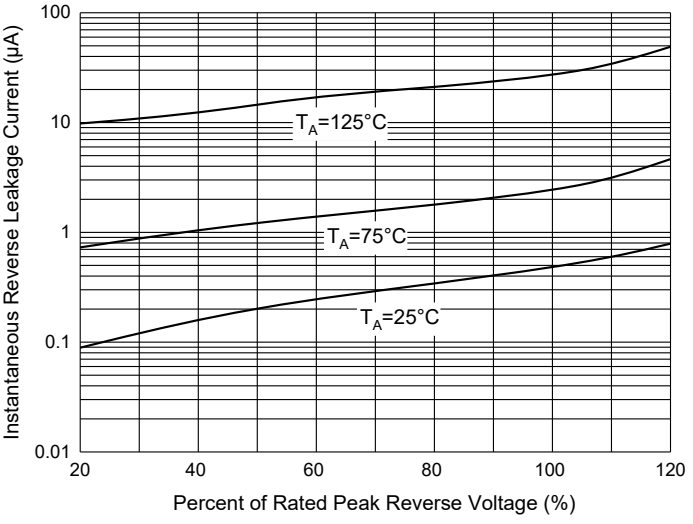


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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