

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
- Low Switching Losses, High Efficiency
- Ultrafast Reverse Recovery Time
- Halogen Free. "Green" Device (Note 2)

Maximum Ratings

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Typical Thermal Resistance: 12°C/W Junction to Lead(Note 3)
- Typical Thermal Resistance: 10°C/W Junction to Case(Note 3)
- Typical Thermal Resistance: 60°C/W Junction to Ambient(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURS5J	MURS5J	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

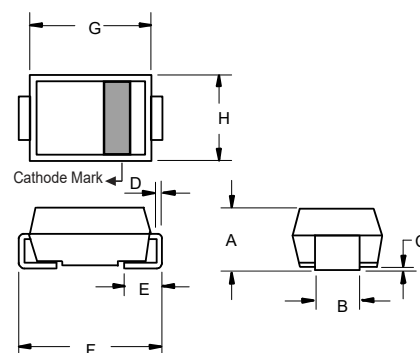
Average Rectified Forward Current	$I_{F(AV)}$	5A	$T_C=100^\circ\text{C}$	
Peak Forward Surge Current	I_{FSM}	120A	8.3ms, Half Sine	
Instantaneous Forward Voltage	V_F	1.25V(Max)	$I_F=5A; T_J=25^\circ\text{C}$	
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	5uA 50uA	$T_J=25^\circ\text{C}; T_J=125^\circ\text{C}$	
Typical Junction Capacitance	C_J	65pF	Measured at 1.0MHz, $V_R=4.0V$	
Reverse Recovery Time	t_{rr}	35ns(Typ.) 50ns(Max.)	$I_F=0.5A; I_R=1.0A; I_{RR}=0.25A$	
		50ns(Typ.) 80ns(Typ.)	$T_J=25^\circ\text{C}; T_J=125^\circ\text{C}$	
Peak recovery current	I_{RRM}	6.5A(Typ.) 10A(Typ.)	$I_F=5A; di_F/dt=-200A/\mu s; V_R=400V$	
Reverse recovery charge	Q_{rr}	170nC(Typ.) 400nC(Typ.)	$T_J=25^\circ\text{C}; T_J=125^\circ\text{C}$	

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.Mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas.

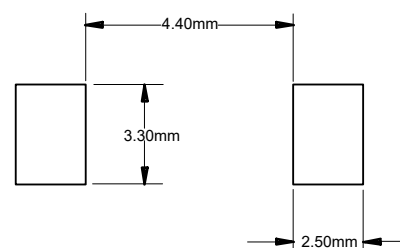
5 Amp Surface Mount Ultrafast Rectifier Diode 600 Volts

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

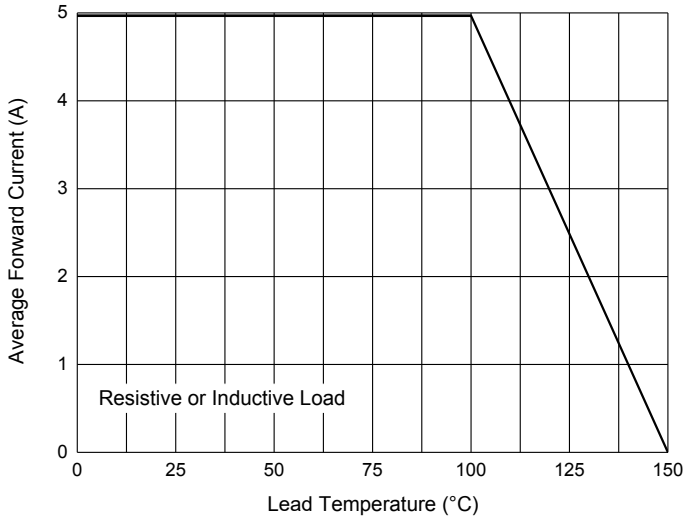


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

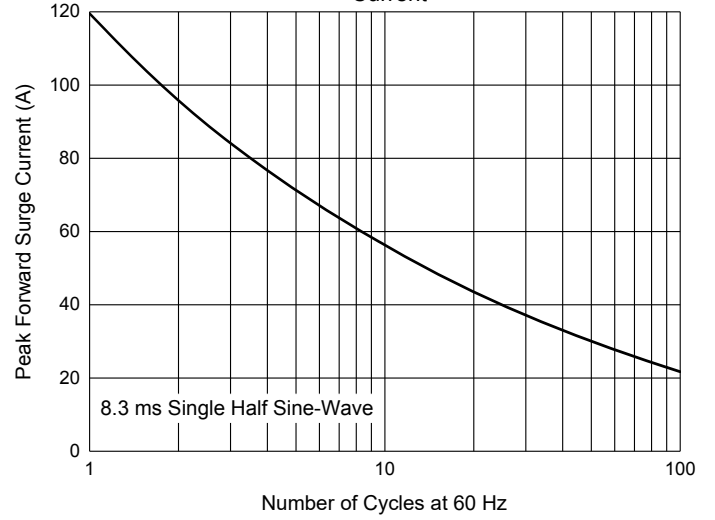


Fig. 3 - Typical Instantaneous Forward Characteristics

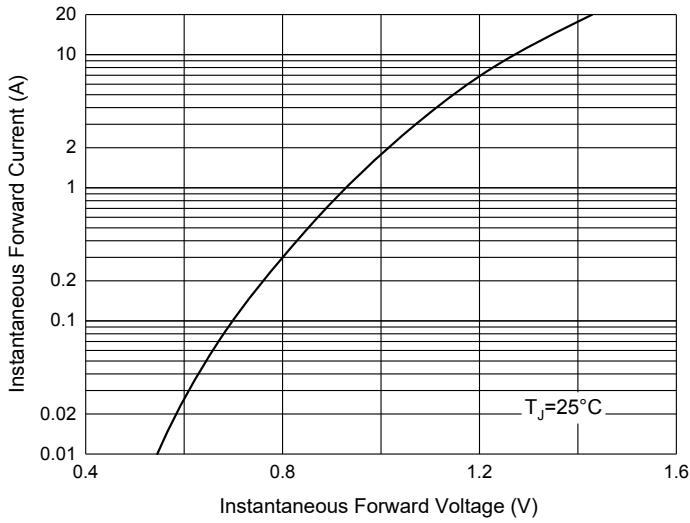
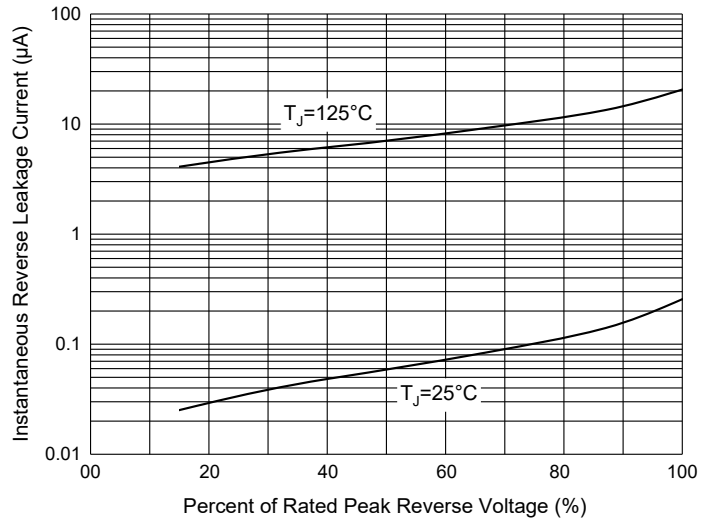


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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