

### Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 2)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Glass Passivated Junction

### Maximum Ratings

- Operating Junction Temperature Range: -65°C to +175°C
- Storage Temperature Range: -65°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
ER1A-L	ER1A	50V	35V	50V
ER1B-L	ER1B	100V	70V	100V
ER1D-L	ER1D	200V	140V	200V
ER1G-L	ER1G	400V	280V	400V
ER1J-L	ER1J	600V	420V	600V

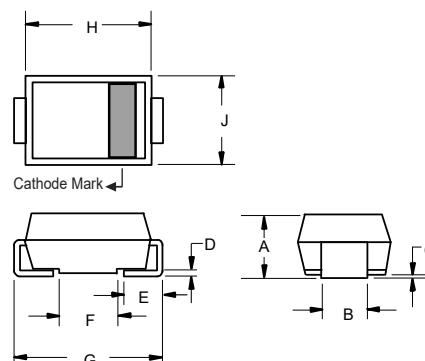
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_L=150^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage ER1A-L-ER1D-L ER1G-L ER1J-L	$V_F$	0.95V 1.25V 1.70V	$I_{FM}=1.0A;$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$ 80 $\mu\text{A}$	$T_J=25^\circ\text{C};$ $T_J=100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured At 1.0MHz $V_R=4.0V$
Maximum Reverse Recovery Time	$T_{RR}$	35ns	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A$

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

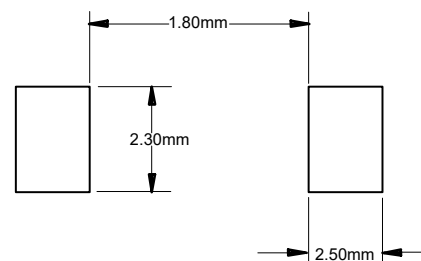
# 1 Amp Super Fast Recovery Rectifier 50 to 600 Volts

### SMB (DO-214AA)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

### Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

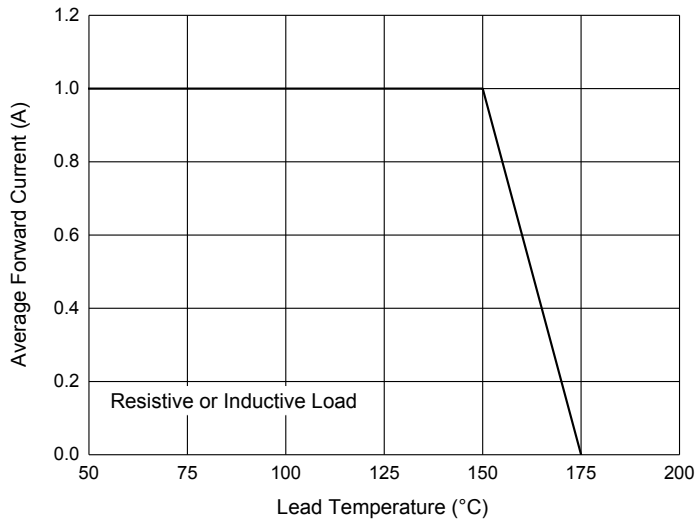


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

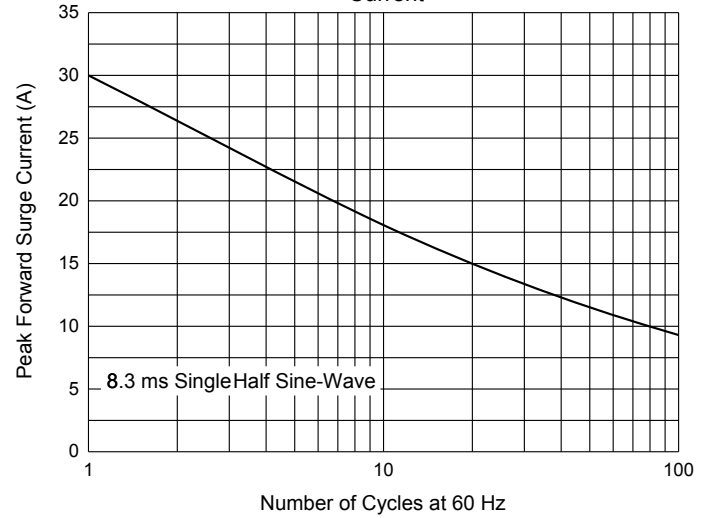


Fig. 3 - Typical Instantaneous Forward Characteristics

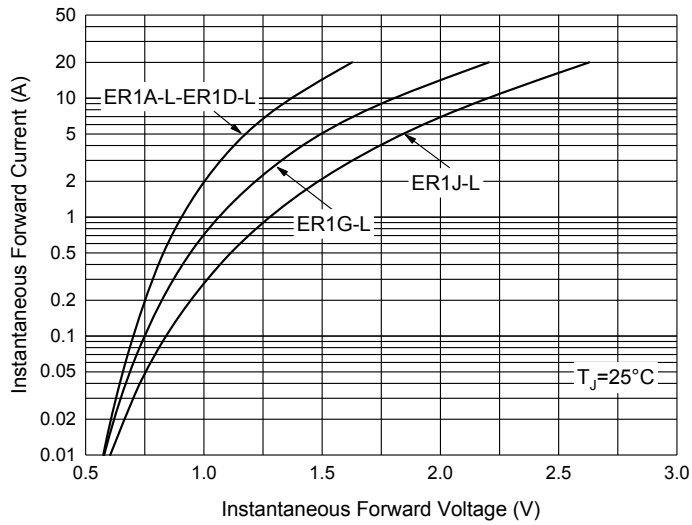
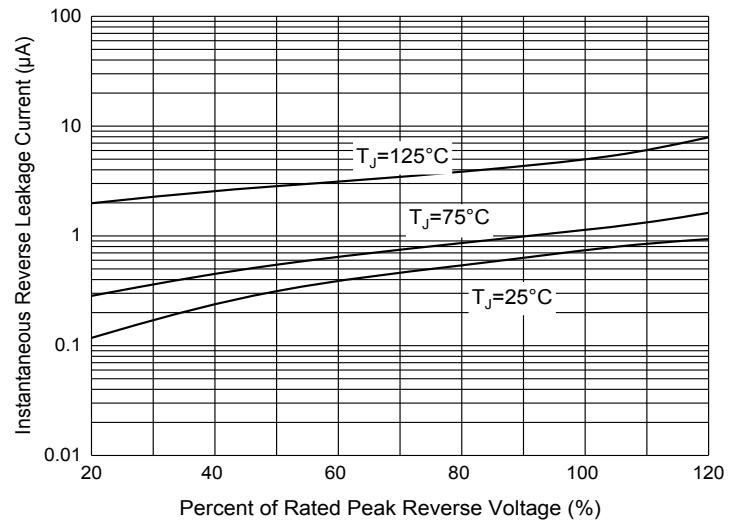


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
ER1A-LTP~ER1J-LTP	Tape&Reel: 3Kpcs/Reel

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