

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 Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 12°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ER3AB	ER3AB	50V	35V	50V
ER3BB	ER3BB	100V	70V	100V
ER3CB	ER3CB	150V	105V	150V
ER3DB	ER3DB	200V	140V	200V
ER3GB	ER3GB	400V	280V	400V
ER3JB	ER3JB	600V	420V	600V
ER3KB	ER3KB	800V	560V	800V
ER3MB	ER3MB	1000V	700V	1000V

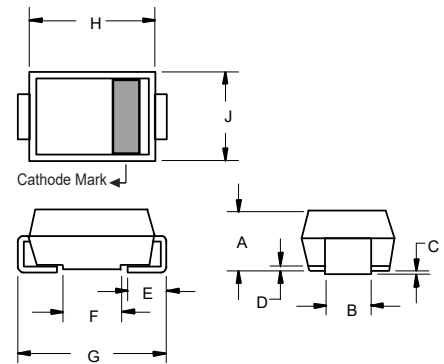
Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Conditions
Average Forward Current	$I_{F(AV)}$	3.0A	$T_L=80^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	100A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	ER3AB-ER3DB: 0.95V ER3GB: 1.25V ER3JB-ER3MB: 1.70V	$I_{FM}=3.0A$; $T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 200µA	$T_J=25^\circ\text{C}$; $T_J=100^\circ\text{C}$
Maximum Reverse Recovery Time	T_{RR}	ER3AB~ER3JB: 35ns ER3KB~ER3MB: 75ns	$I_F=0.5A$; $I_R=1.0A$; $I_{rr}=0.25A$
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.

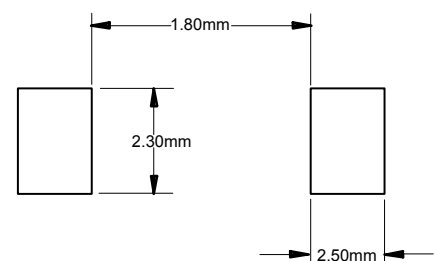
3 Amp Super Fast Recovery Silicon Rectifier 50 to 1000 Volts

SMB (DO-214AA)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
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

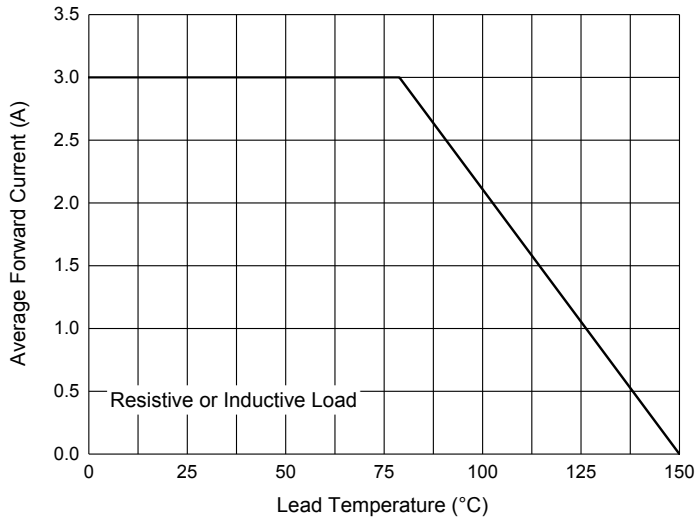


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

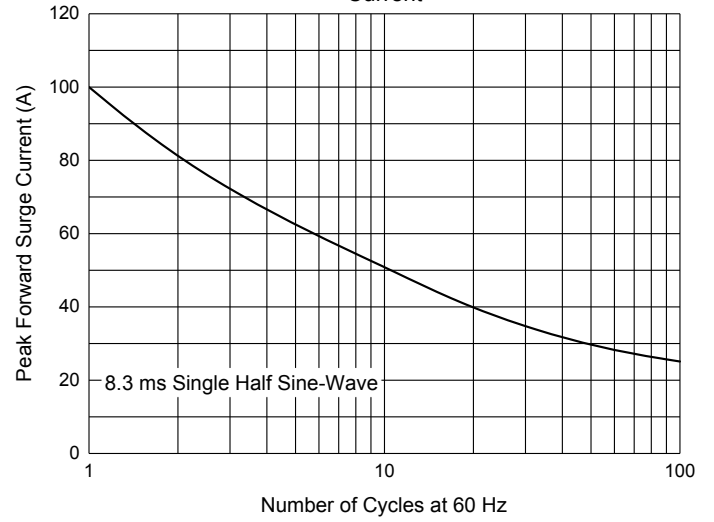


Fig. 3 - Typical Instantaneous Forward Characteristics

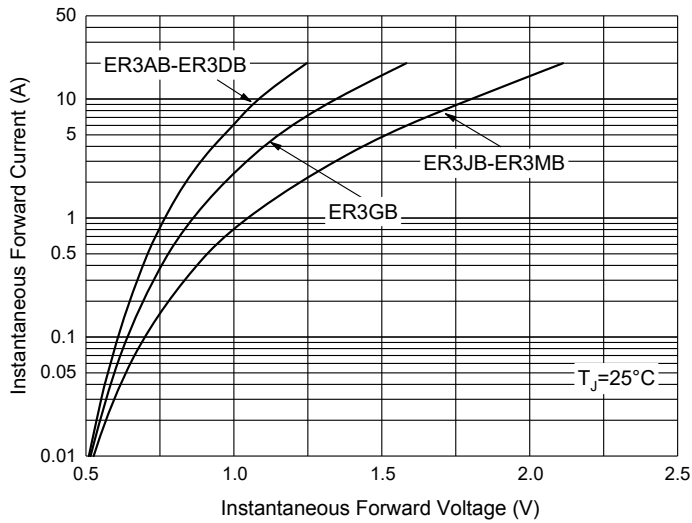
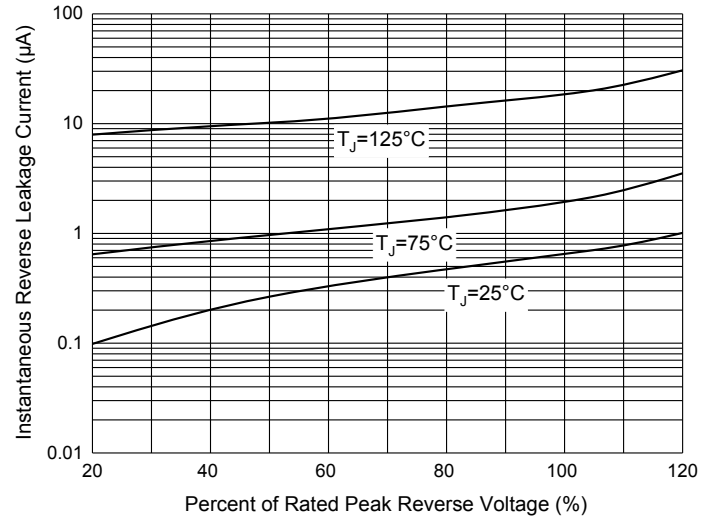


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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