



DATA SHEET

SEMICONDUCTOR

ER3A Thru ER3J

SURFACE MOUNT SUPERFAST RECTIFIER

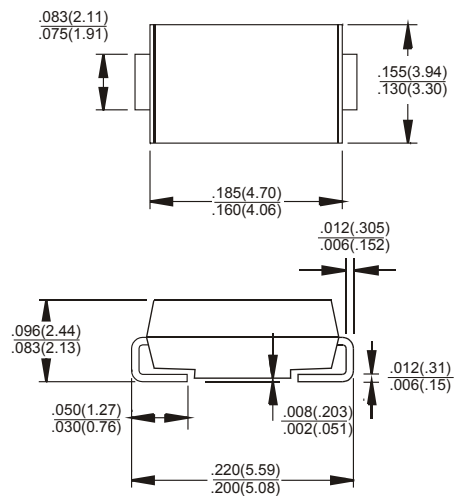


VOLTAGE - 50 to 600 Volts CURRENT - 3.0 Ampere

FEATURES

- For surface mounted applications
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Complete device submersible temperature of 260°C for 10 seconds in solder bath
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMB/DO-214AA Unit:inch(mm)



MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

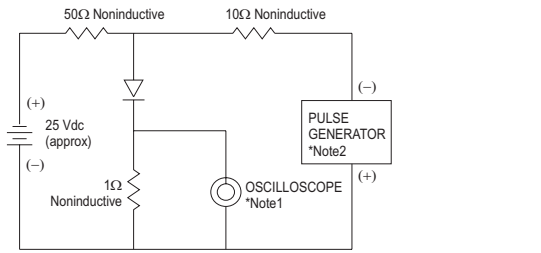
	ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current, at TL=75	3.0							A
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load(JEDEC method)	100.0							A
Maximum Instantaneous Forward Voltage at 3.0A	0.95		1.25			1.70		V
Maximum DC Reverse Current TA=25	5.0							µA
At Rated DC Blocking Voltage TA=100	200							µA
Maximum Reverse Recovery Time (Note 1)	35.0							nS
Typical Junction capacitance (Note 2)	45.0							pF
Typical Thermal Resistance (Note 3) RθJA	16							/W
Operating and Storage Temperature Range TJ	-55 to +150							

NOTES:

- Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, Irr=0.25A
- Measured at 1 MHz and applied Vr = 4.0 volts.
- 8.0 mm² (.013mm thick) land areas.

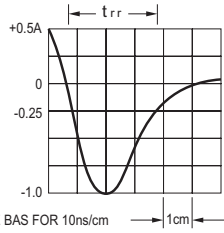
DEVICE CHARACTERISTICS

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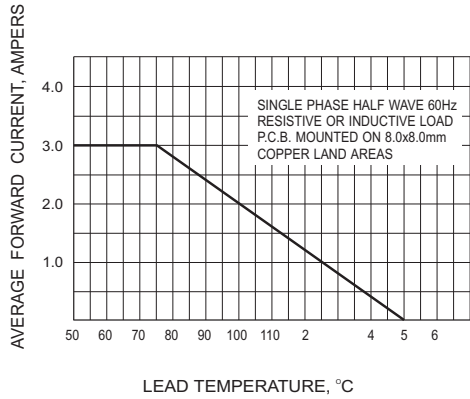


Notes:

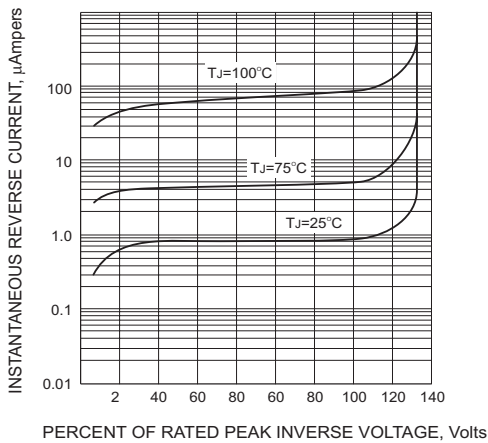
1. Rise Time=7ns max.
Input Impedance= 1 megohm 22pF
2. Rise Time=10ns max.
Source Impedance= 50 Ohms 22pF



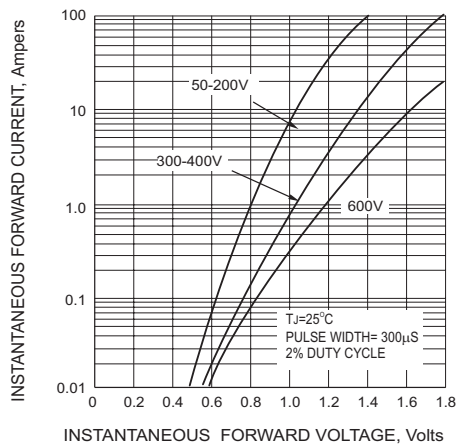
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM



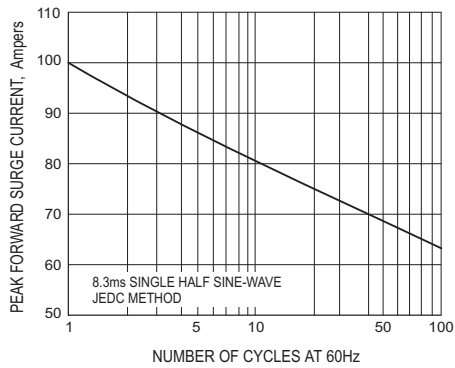
FORWARD CURRENT DERATING CURVE



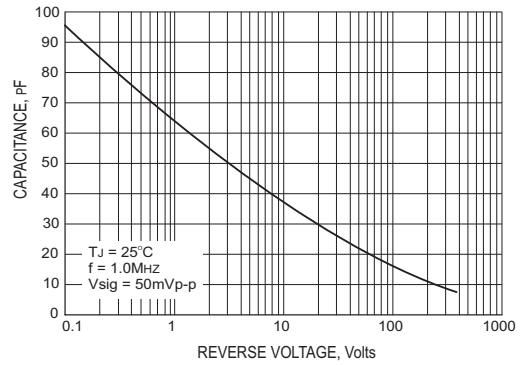
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



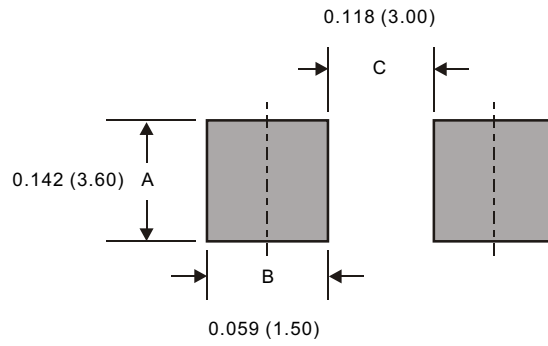
MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE

PACKAGE OUTLINE & DIMENSIONS

ER3A Thru ER3J



Dimensions in inches and (millimeters)