

ER3A THRU ER3J

SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

REVERSE VOLTAGE: 50 to 600 VOLTS

FORWARD CURRENT: 3.0 AMPERE

<http://www.njzrg.com>

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for hig
- Plastic package has Underwriters Laboratory
Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, DO-214AB(SMC)

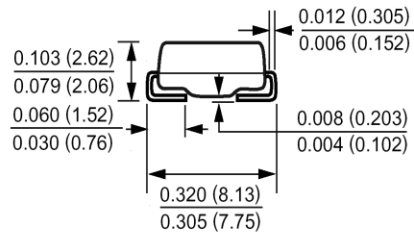
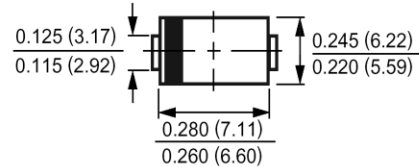
Terminals: Solder plated, solderable per MIL-STD-750,
method 2026 guaranteed

Polarity: Color band denotes cathode end

Packaging: 16mm tape per EIA STD RS-481

Weight: 0.007 ounce, 0.21 gram

DO214-AB(SMC)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	ER3A	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at $T_L=75$	$I_{(AV)}$	3.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							Amp
Maximum Forward Voltage at 3.0A	V_F	0.95				1.25		1.70	Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	5.0				200			μ Amp
Typical Junction Capacitance (Note 1)	C_J	45							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	16							/W
Maximum Reverse Recovery Time (Note 3)	T_{RR}	35					50		nS
Operating Junction Temperature Range	T_J	-55 to +150							
Storage Temperature Range	T_{stg}	-55 to +150							

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

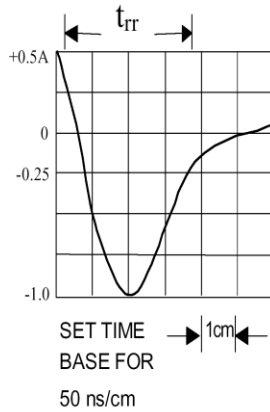
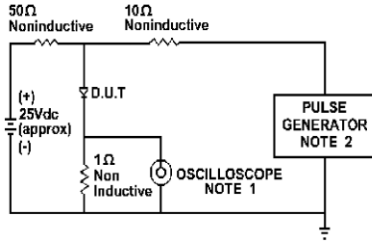
2- Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

3- Reverse Recovery Test Conditions : $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.

ER3A THRU ER3J

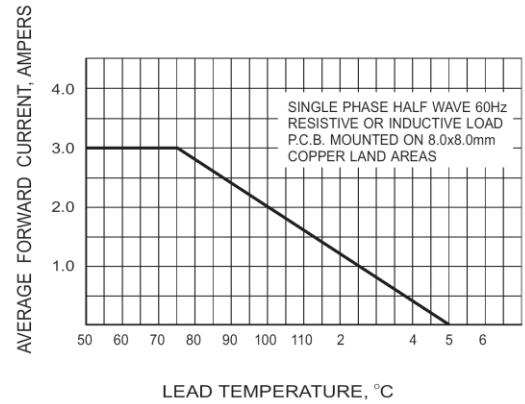
SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

RATINGS AND CHARACTERISTIC CURVES

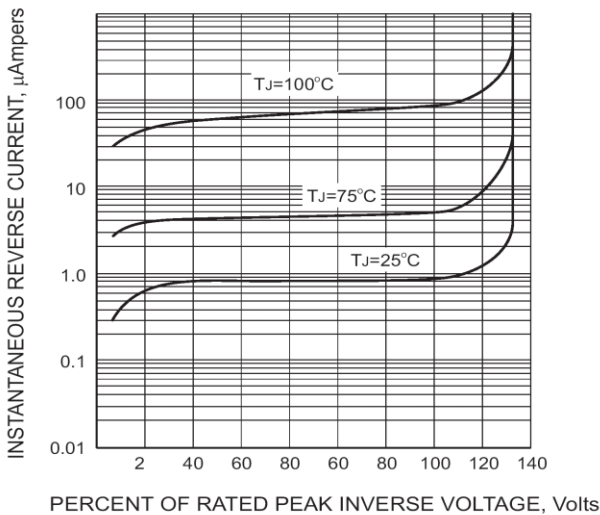


NOTE: 1. Rise Time = 7ns max.
Input Impedance = 1 meqohm. 22pF
2. Rise Time = 10ns max.
Source Impedance = 50 Ohms

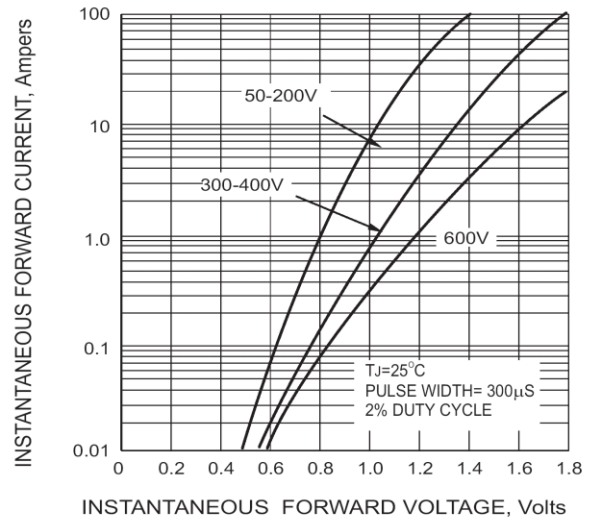
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM



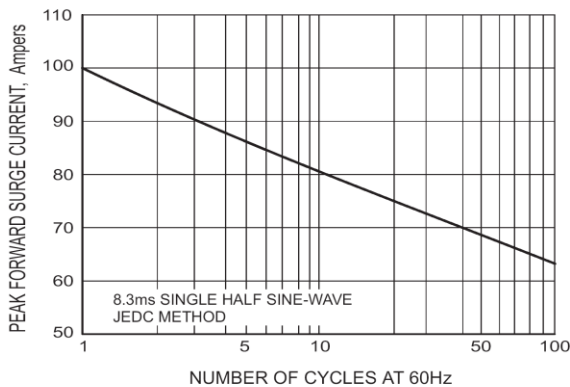
FORWARD CURRENT DERATING CURVE



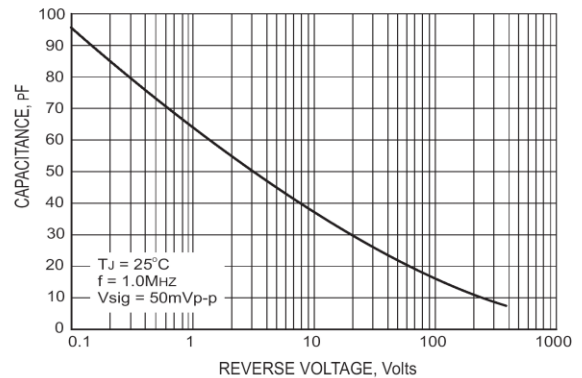
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE