



DATA SHEET

ER3A~ER3J

SURFACE MOUNT RECTIFIER

VOLTAGE- 50 to 600 Volts CURRENT - 3.0 Amperes

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

MECHANICAL DATA

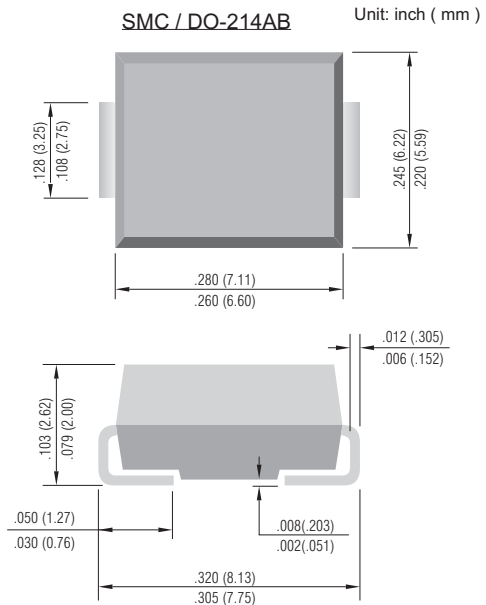
Case: JEDEC DO-214AB molded plastic

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

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.007 ounce, 0.21 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

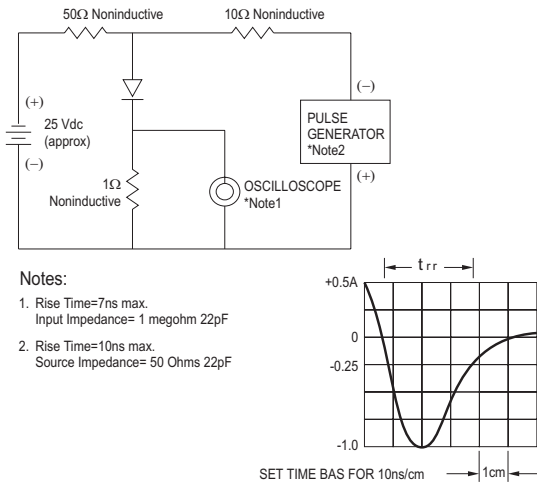
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	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 $T_L=75^\circ\text{C}$	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave 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 $T_A=25^\circ\text{C}$	5.0							μA
at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	200							μA
Maximum Reverse Recovery (Note 1)	35.0							ns
Typical Junction Capacitance (Note 2)	45.0							pf
Maximum Thermal Resistance(Note 3) $R\theta\text{JA}$	16							$^\circ\text{C/W}$
Operating and Storage Temperature Range T_J	-55 to +150							$^\circ\text{C}$

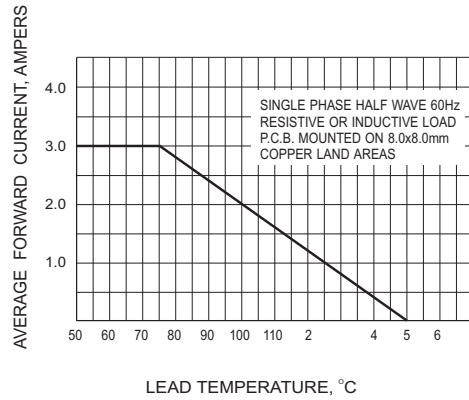
NOTES: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

2. Measured at 1 MHz and applied $V_r = 4.0$ volts.

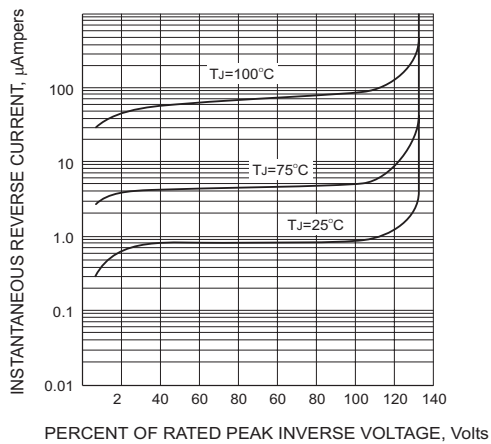
3. 8.0 mm² (.013mm thick) land areas.



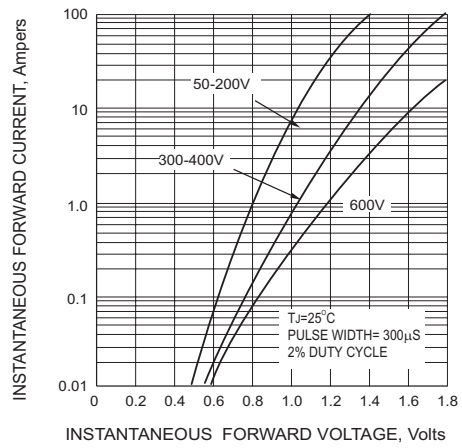
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM



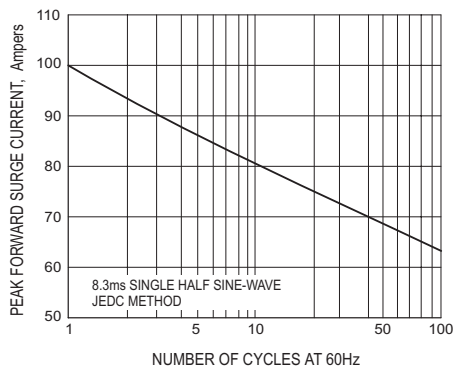
FORWARD CURRENT DERATING CURVE



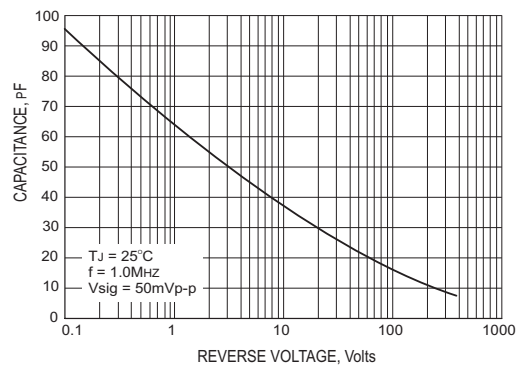
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE