ER3A~ER3J

GM GarboMicro Semiconductor

SURFACE MOUNT RECTIFIER

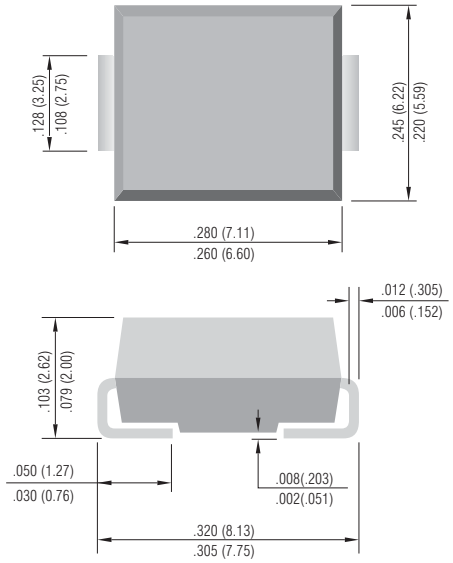
VOLTAGE- 50 to 600 Volts CURRENT - 3.0 Amperes

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

SMC / DO-214AB

Unit: inch (mm)



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)

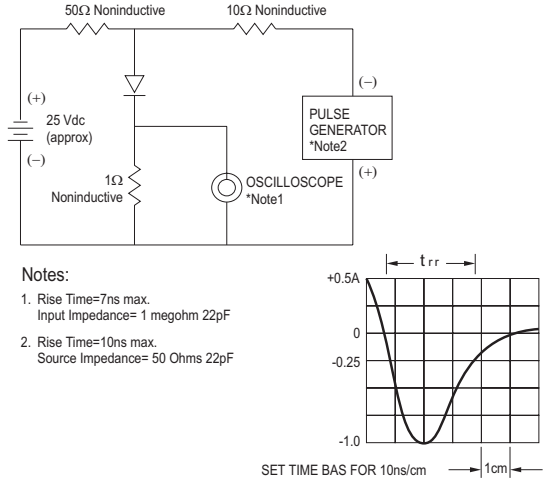
Weight: 0.007 ounce, 0.21 gram

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°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°C	5.0							μA
at Rated DC Blocking Voltage T_A=125°C	200							μA
Maximum Reverse Recovery (Note 1)	35.0							ns
Typical Junction Capacitance (Note 2)	45.0							pf
Maximum Thermal Resistance(Note 3) RθJA	16							°C/W
Operating and Storage Temperature Range T_J	-55 to +150							°C

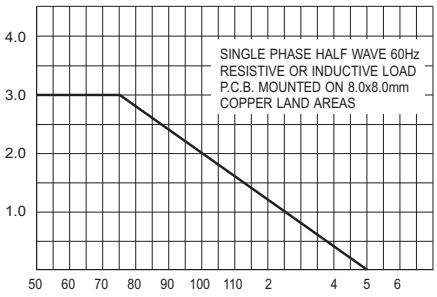
NOTES: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
2. Measured at 1 MHz and applied V_r = 4.0 volts.
3. 8.0 mm^2 (.013mm thick) land areas.

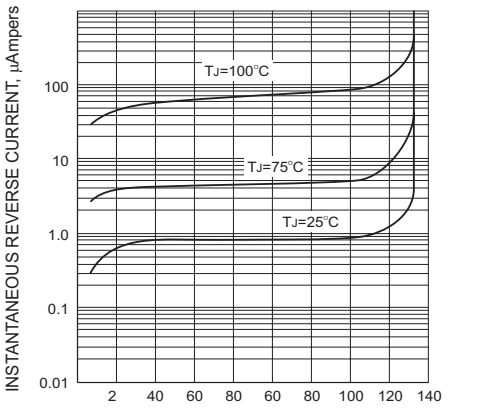


Notes:

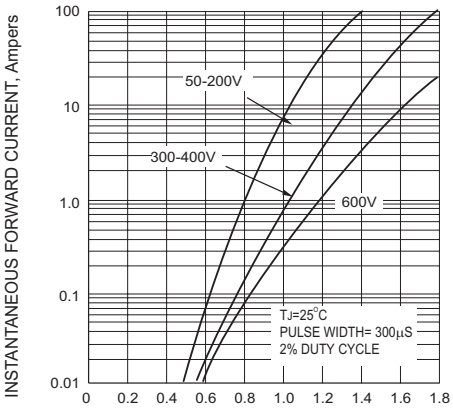
1. Rise Time=7ns max.
   Input Impedance= 1 megohm 22pF
2. Rise Time=10ns max.
   Source Impedance= 50 Ohms 22pF

REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM

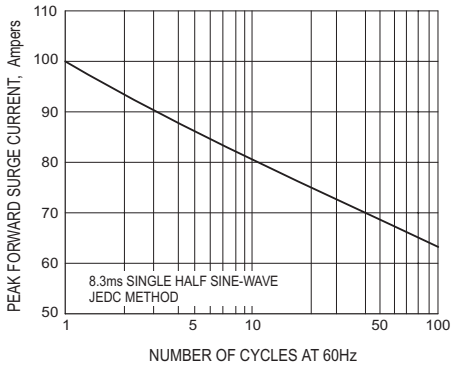




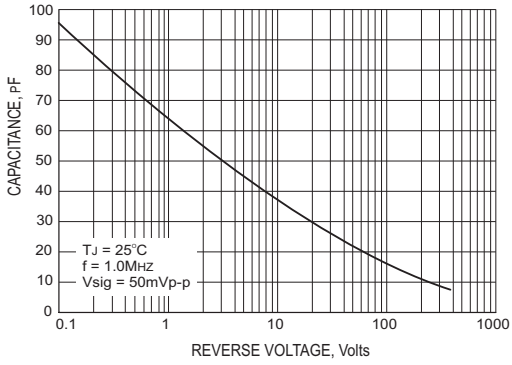
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE