



DATA SHEET

SEMICONDUCTOR

E2A THRU E2J

SURFACE MOUNT SUPERFAST RECTIFIER

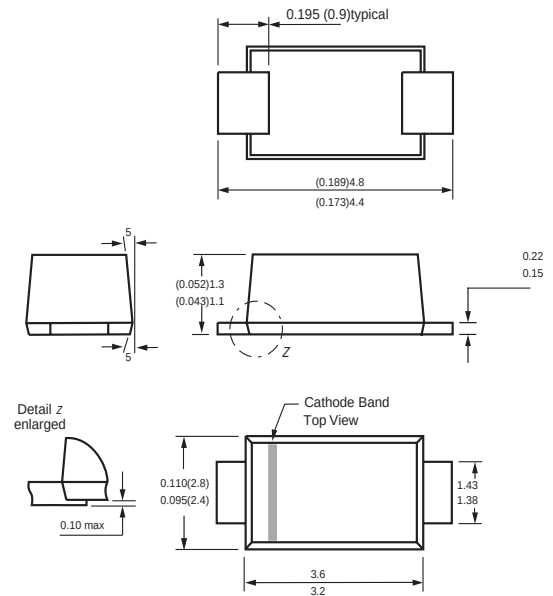
VOLTAGE - 50 to 600 Volts CURRENT - 2.0 Ampere



SMF Unit: inch (mm)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:
260 °C / 10 seconds at terminals
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- Pb free product at available : 99% Sn above meet RoHS environment substance directive request



MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.064 gram

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	E2A	E2B	E2C	E2D	E2E	E2G	E2J	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current, at TL=120°C	Volts	2.0							Amps
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load(JEDEC method)	IFSM	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	VF	0.95				1.25		1.7	Volts
Maximum DC Reverse Current TA=25°C	IR	5.0							uA
At Rated DC Blocking Voltage TA=100°C		100							
Maximum Reverse Recovery Time (Note 1)	TRR	35.0							nS
Typical Junction capacitance (Note 2)	Cj	10.0							pF
Typical Thermal Resistance (Note 3)	RθJA	35							°C/W
Operating and Storage Temperature Range	TSTG	-55to +150							°C

NOTES:

1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, Irr=0.25A
2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts
3. 8.0mm2 (.013mm thick) land areas

RATING AND CHARACTERISTIC CURVES

E2A THRU E2J

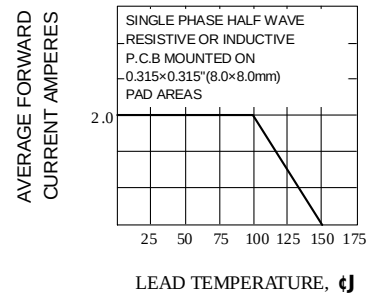
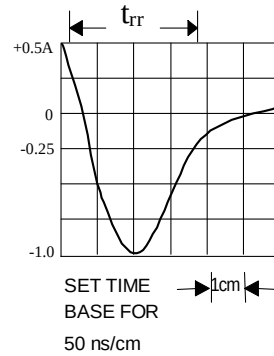
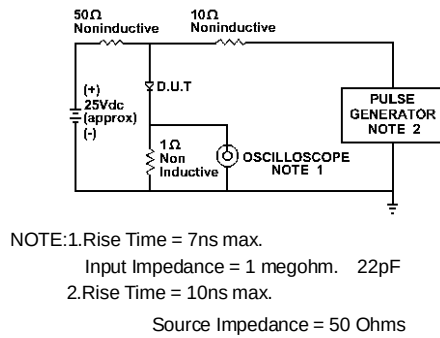


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

Fig. 2-MAXIMUM AVERAGE FORWARD CURRENT RATING

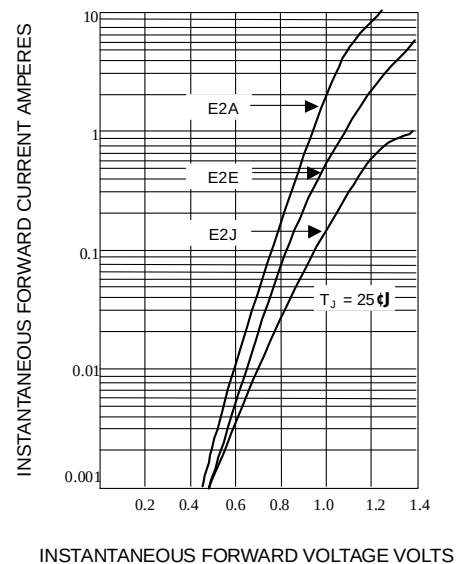
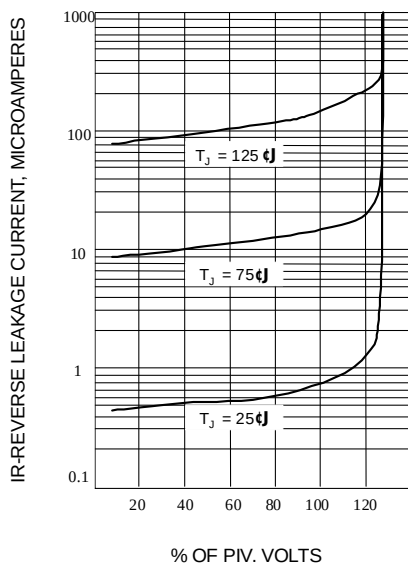


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

Fig. 4-TYPICAL FORWARD CHARACTERISTICS

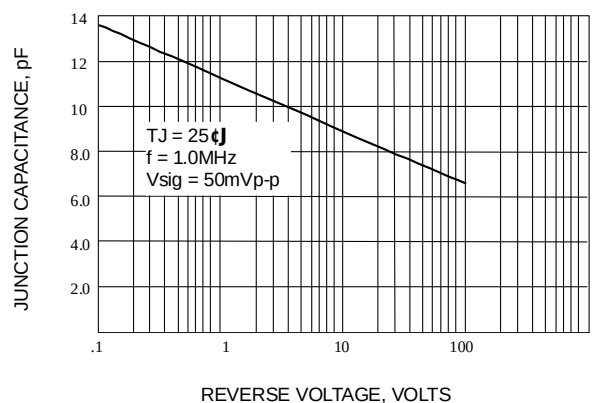
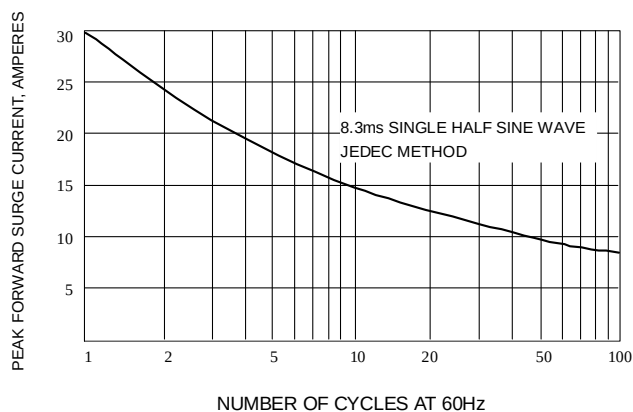


Fig. 5-MAXIMUM NON-REPETITIVE SURGE CURRENT

Fig. 6-TYPICAL JUNCTION CAPACITANCE