



TAYCHIPST

SURFACE MOUNT SUPER FAST RECTIFIERS

ER3A THRU ER3J

50V-600V 3.0A

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-0

- Glass passivated junction
- High temperature soldering:
260 /10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic

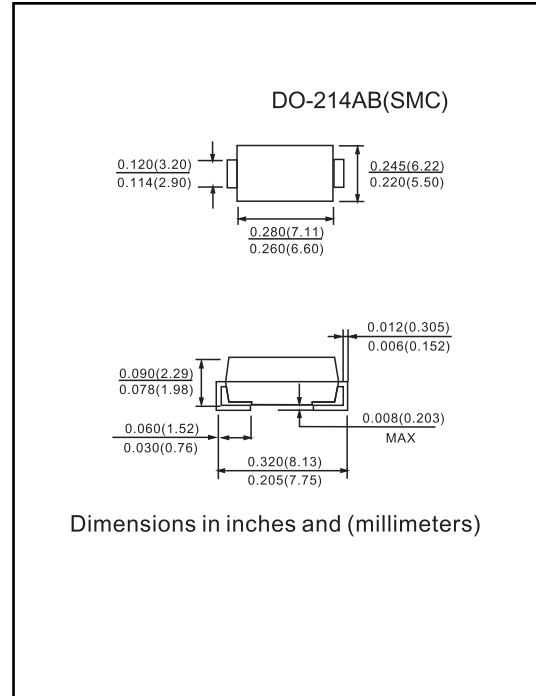
Terminals: Solder plated, solderable per MIL-STD-750,

Method 2026

Polarity: Indicated by cathode band

Standard packaging: 16mm tape (EIA-481)

Weight: 0.007 ounce, 0.21 gram



Dimensions in inches and (millimeters)

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 mm² (.013mm thick) land areas.

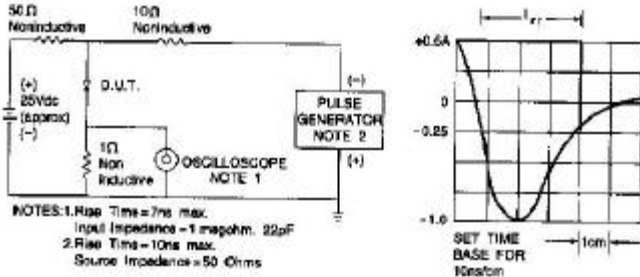


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM

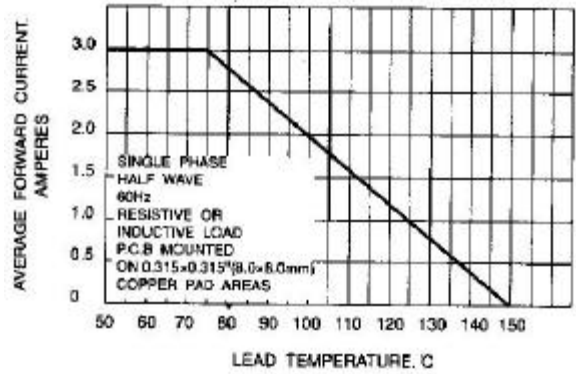
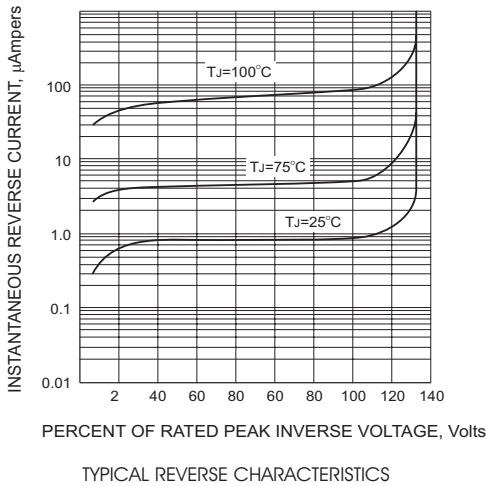
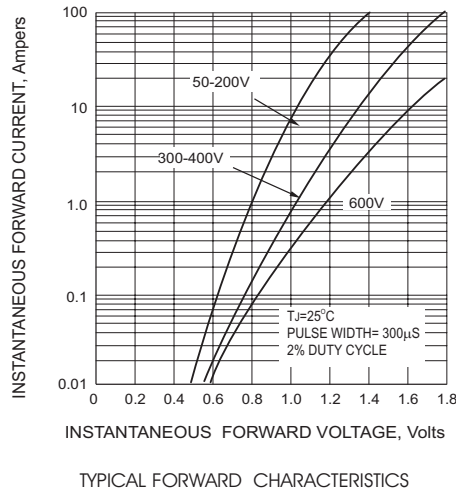


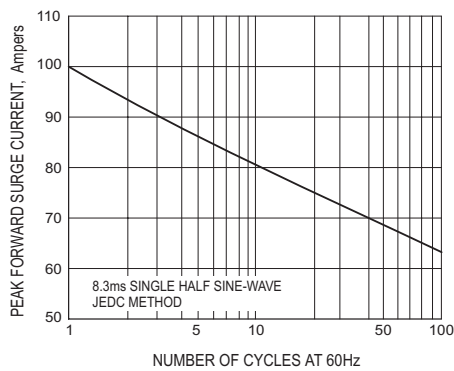
Fig. 2-MAXIMUM AVERAGE FORWARD CURRENT RATING



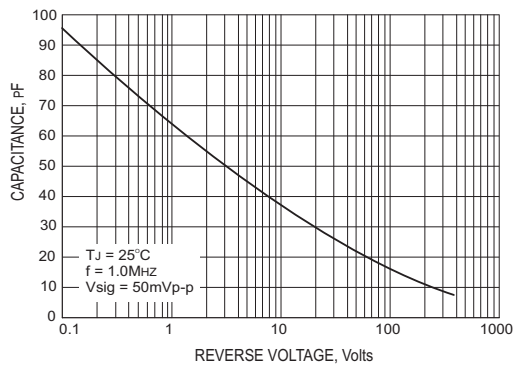
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE