

ER2A thru ER2J

SURFACE MOUNT SUPERFAST RECTIFIER



**CHENG-YI
ELECTRONIC**



FEATURES

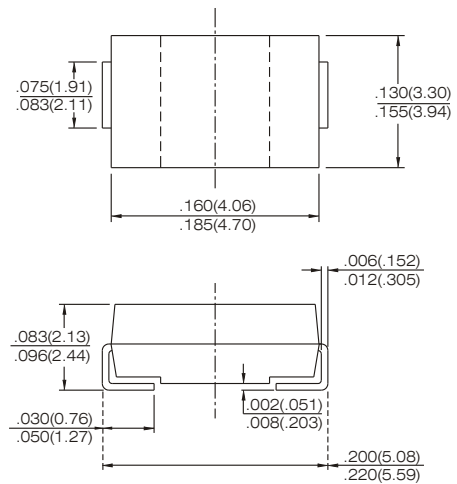
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering:
260°C/10 seconds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

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard Packaging: 12mm tape (EIA-481)
- Weight: 0.003 ounces, 0.093 gram

VOLTAGE RANGE
-50 TO -600 VOLTS
CURRENT
-2.0 Amperes

SMB/DO-214AA



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%.

	SYMBOLS	ER2A	ER2B	ER2C	ER2D	ER2E	ER2G	ER2J	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current, at $T_L=110^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	0.95				1.25	1.7		V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	5.0				150			μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	35.0				nS			
Typical Junction Capacitance (Note 2)	C_J	25.0				pF			
Maximum Thermal Resistance (Note 3)	$R_{\theta JL}$	20.0				$^\circ\text{C/W}$			
Operating and Storage Temperature Range	T_J, T_{STG}	-50 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 1.0 MHz and Applied $V_r=4.0$ volts.
3. 8.0mm^2 (.013mm thick) land areas.

ER2A thru ER2J

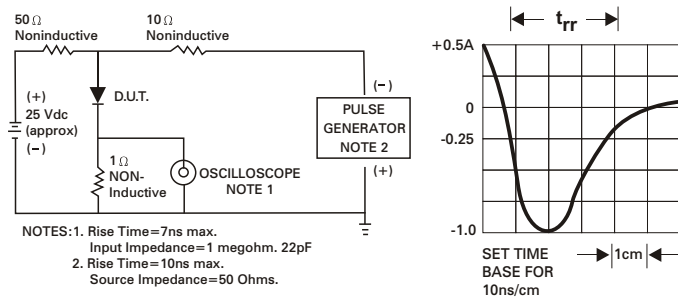
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RATING AND CHARACTERISTICS CURVES ER2A THRU ER2J

**Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC
AND TEST CIRCUIT DIAGRAM ES1A THRU ES1G**



**Fig. 2 - MAXIMUM AVERAGE
FORWARD CURRENT RATING**

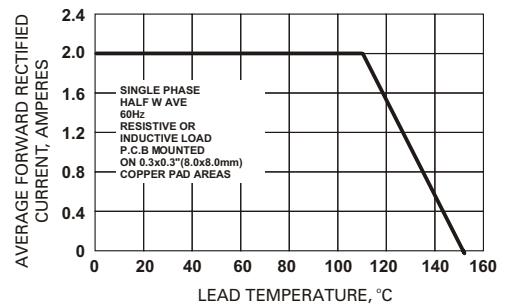


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

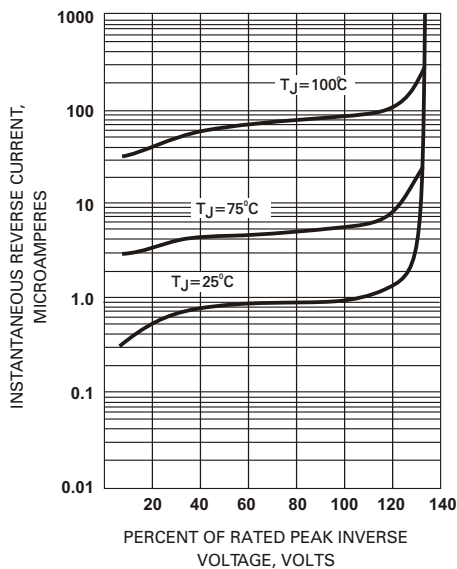
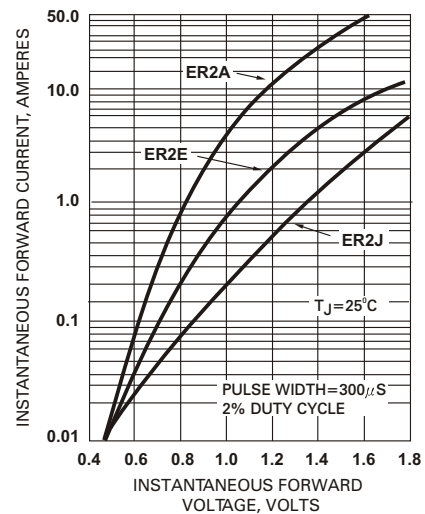


Fig. 4 - TYPICAL FORWARD CHARACTERISTICS



**Fig. 5 - MAXIMUM NON-REPETITIVE
PEAK FORWARD SURGE CURRENT**

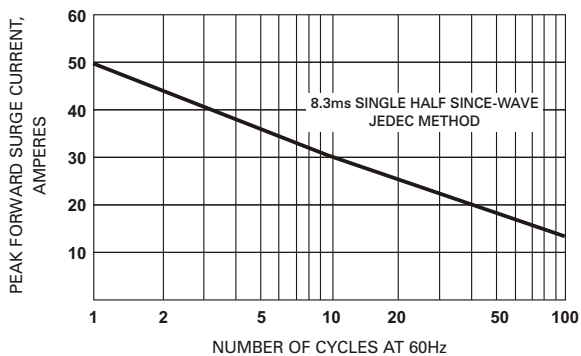


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

