



ER3A-AU~ER3J-AU

SURFACE MOUNT RECTIFIER

VOLTAGE 50 to 600 Volts **CURRENT** 3 Amperes

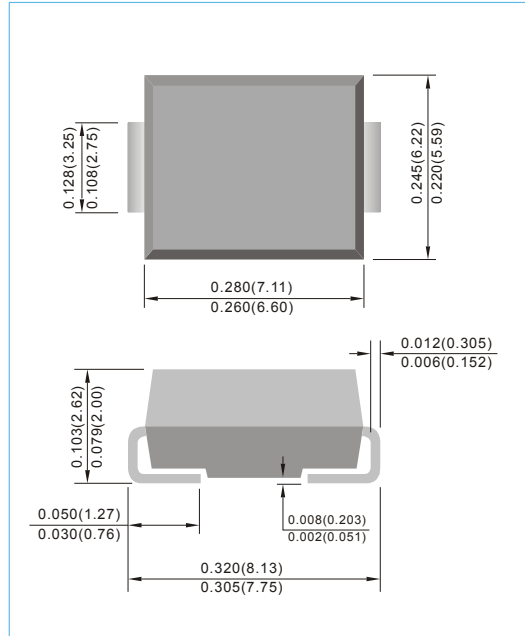
SMC / DO-214AB Unit : inch(mm)

FEATURES

- For surface mounted applications
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in Sn-Pb and Sn-Ag
- Green molding compound as per IEC61249 Std. (Halogen Free)

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: 0.0082 ounce, 0.2325 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%.

PARAMETER	SYMBOL	ER3A-AU	ER3B-AU	ER3C-AU	ER3D-AU	ER3E-AU	ER3G-AU	ER3J-AU	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 Current at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100							A
Maximum Forward Voltage at 3A	V_F	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R					1 200			μA
Maximum Reverse Recovery Time (Notes 1)	t_{rr}					35			ns
Typical Junction Capacitance (Notes 2)	C_j					45			pF
Typical Thermal Resistance (Notes 3)	$R_{\theta JL}$					16			$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}					-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 mm^2 (.013mm thick) land areas.



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RATING AND CHARACTERISTIC CURVES

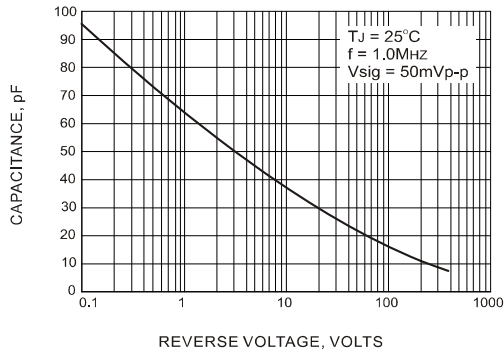


FIG.1 TYPICAL JUNCTION CAPACITANCE

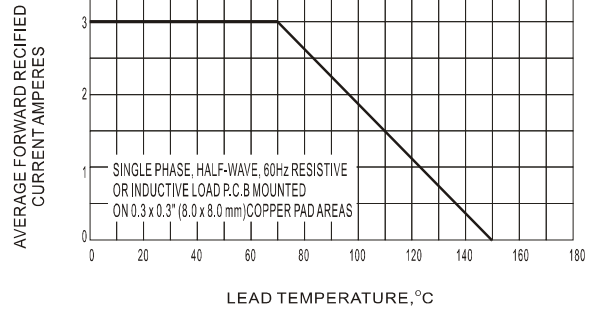


FIG. 2 MAXIMUM AVERAGE FORWARD CURRENT RATING

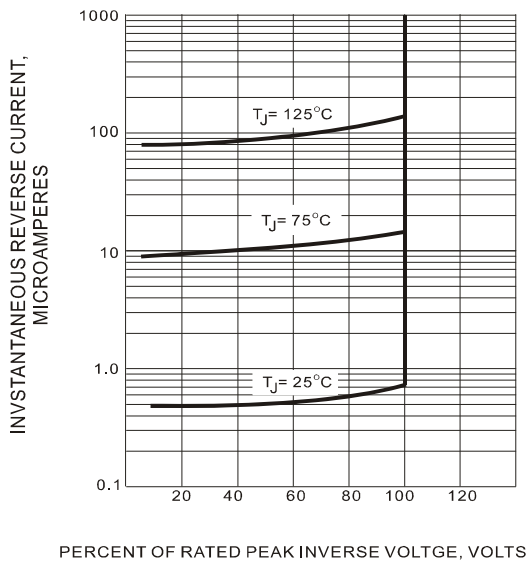


FIG.3 TYPICAL REVERSE CHARACTERISTICS

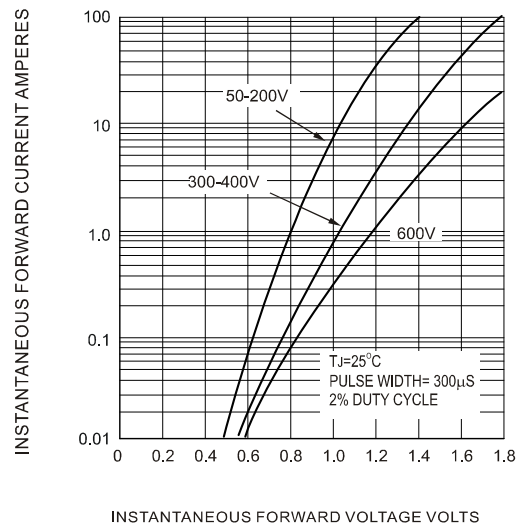


FIG.4 TYPICAL FORWARD CHARACTERISTICS

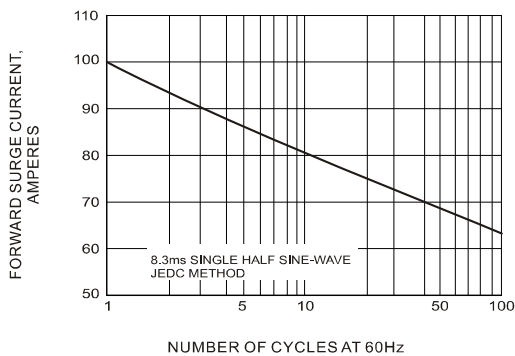


FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT

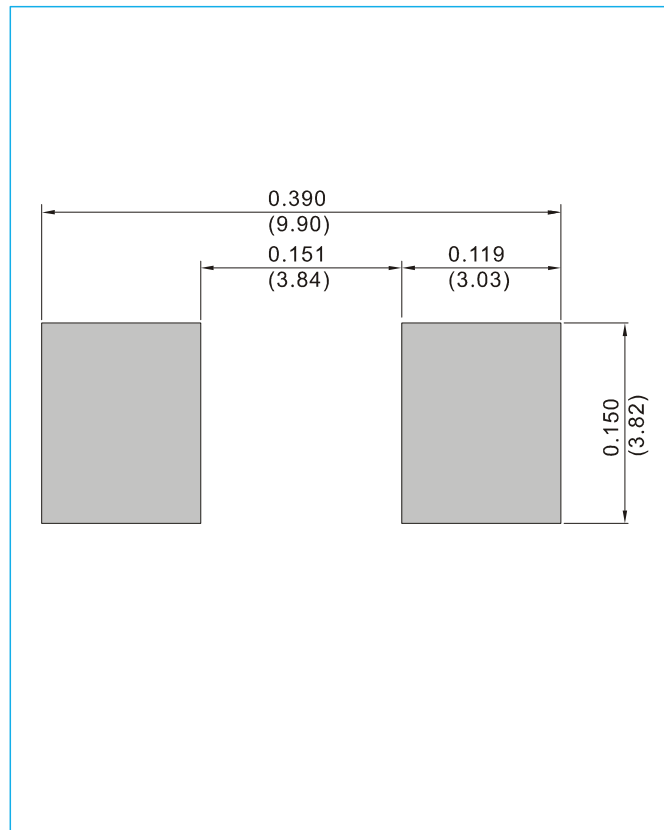


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MOUNTING PAD LAYOUT

SMC / DO-214AB

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 3K per 13" plastic Reel
 - T/R - 0.5K per 7" plastic Reel



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Part No_packing code_Version

ER3A-AU_R1_000A1
ER3A-AU_R1_100A1
ER3A-AU_R2_000A1
ER3A-AU_R2_100A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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