

# ER3A~ER3J

**SURFACE MOUNT RECTIFIER**

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

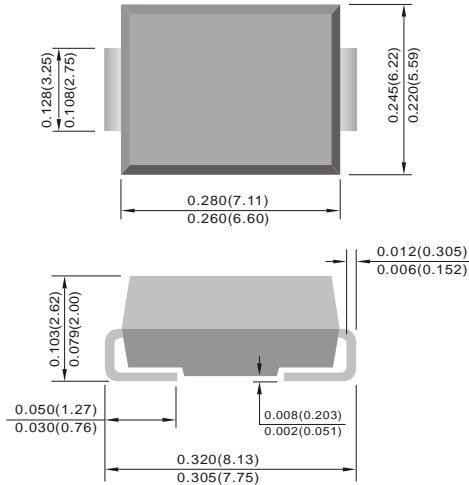


**SMC / DO-214AB**

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-0
- Lead free in comply with EU RoHS 2002/95/EC directives



**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)

**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	ER3B	ER3C	ER3D	ER3E	ER3G	ER3J	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 $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	5					200		$\mu\text{A}$
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  $V_F = 4.0$  volts.  
 3.  $8.0 \text{ mm}^2$  ( .013mm thick ) land areas.

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## RATING AND CHARACTERISTIC CURVES

