ER1A THRU ER1J

1.0AMP SURFACE MOUNT SUPERFAST RECTIFIERS

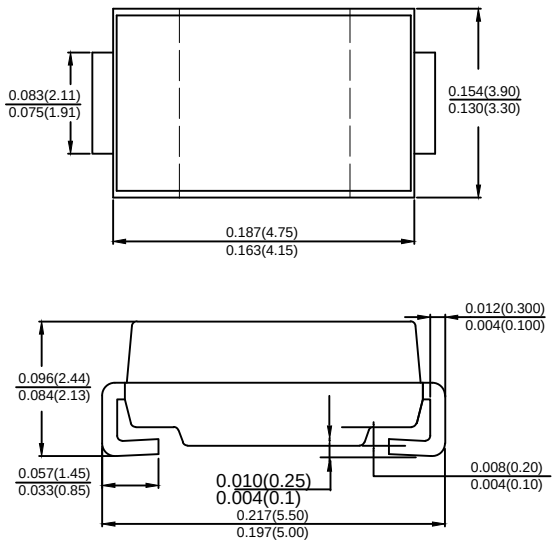
Features

- Glass passivated junction chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V- 0

Mechanical Data

- Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number

SMB/DO-214AA



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	ER1A	ER1B	ER1C	ER1D	ER1E	ER1G	ER1J	Unit
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
Average Rectified Output Current @T_L =90℃	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35							A
Forward Voltage @IF=1.0A	V_{FM}	0.95				1.25		1.7	V
Peak Reverse Current @T_A =25℃	I_R	5.0							uA
At Rated DC Blocking Voltage @T_A =125℃		100							
I^2t Rating for Fusing (t < 8.3ms)	I^2t	5.08							A^2s
Maximum Reverse Recovery Time (Note 1)	Trr	35							ns
Typical Junction Capacitance (Note 2)	C_J	10							pF
Typical Thermal Resistance Junction to Ambient(Note 3)	$R_{\theta JA}$	34							℃/W
Operating Temperature Range	T_J	-55 to+150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Note:
1.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR=0.25A.
2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C.
3.Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length .

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FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING

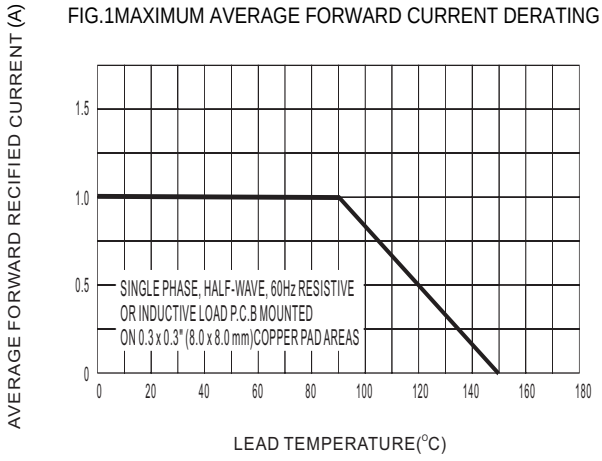


FIG.2TYPICAL FORWARD CHARACTERISTICS

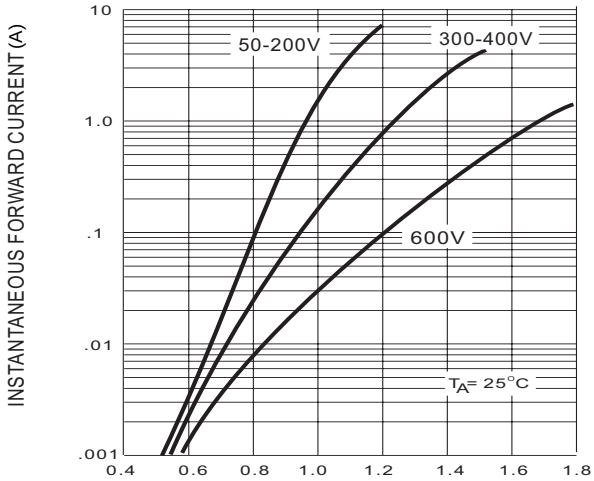


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT

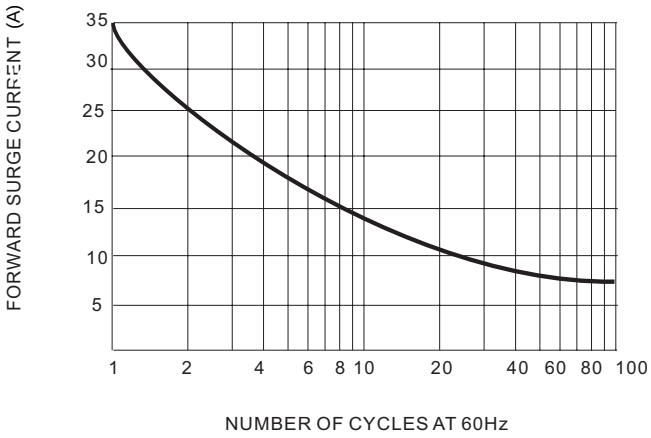


FIG.4TYPICAL JUNCTION CAPACITANCE

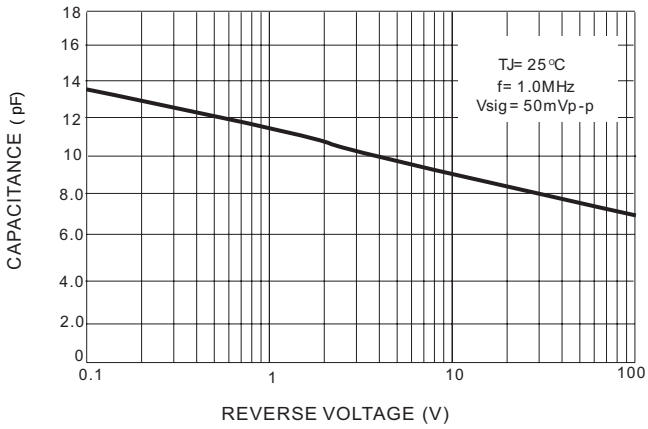


FIG.5TYPICAL REVERSE CHRACTERISTICS

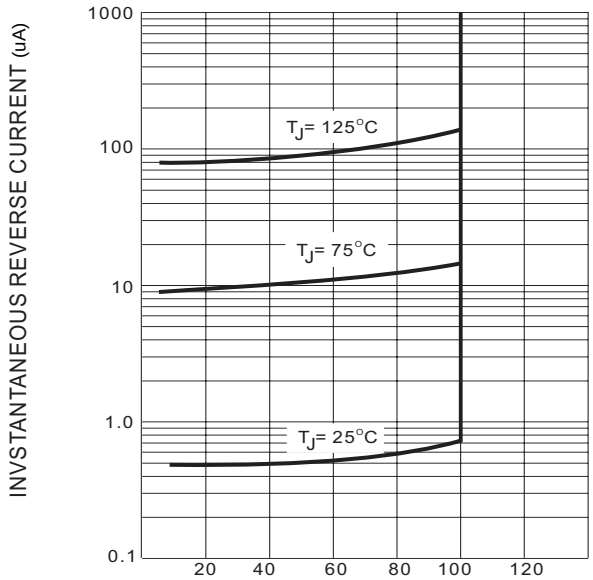
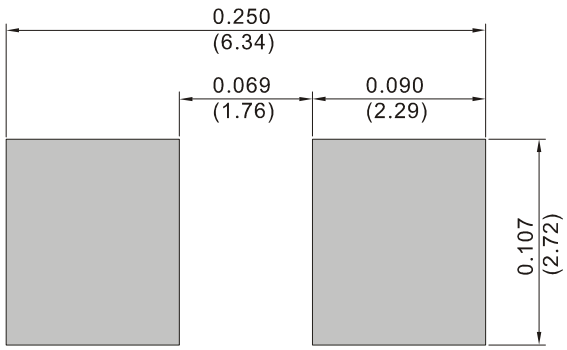


FIG.6 MOUNTING PAD LAYOUT



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