

Surface Mount Rectifiers

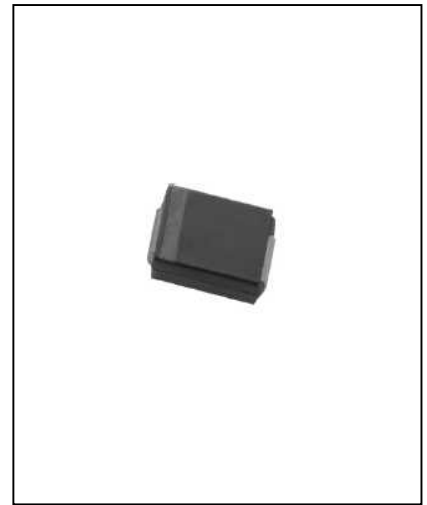
ER3AB--ER3JB

FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol ,Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0



Lead-free



MECHANICAL DATA

- Case: DO-214AA molded plastic
- Terminals: Solder able per MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Weight: 0.003 ounces,0.093 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

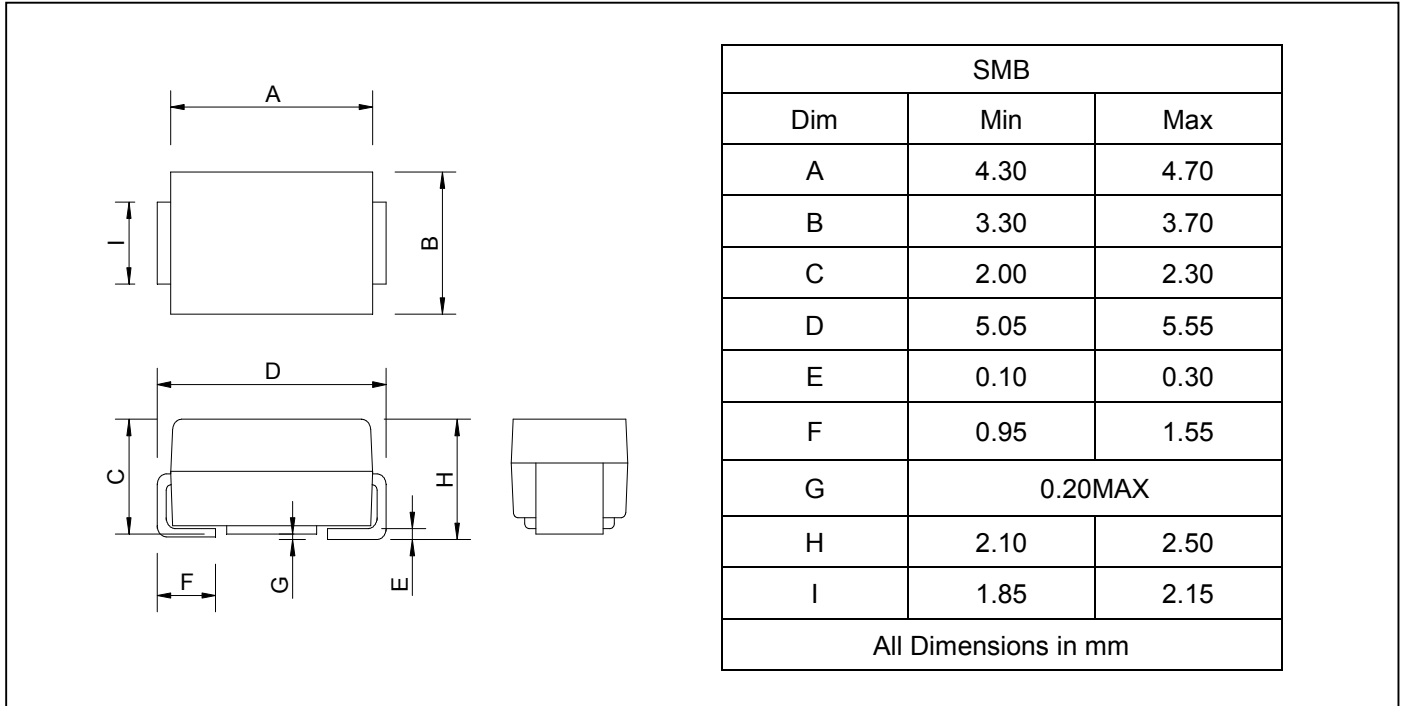
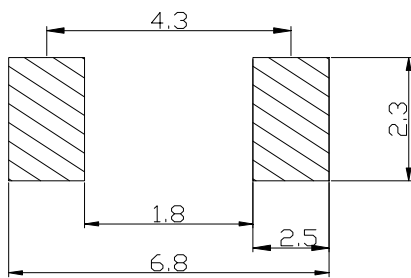
Single phase, half wave,60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		ER3AB	ER3BB	ER3CB	ER3DB	ER3EB	ER3GB	ER3JB	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 @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	100							A
Maximum instantaneous forward voltage @3.0 A	V_F	0.95				1.25		1.7	V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 300							μA
Typical reverse recovery time (Note1)	t_{rr}	35							ns
Typical junction capacitance (Note2)	C_J	95							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ----- + 150							$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 150							$^\circ\text{C}$

 NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$

2. Measured at 1.0MHZ and applied reverse voltage of 4.0VDC

3. Thermal resistance junction to ambient.

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PACKAGE OUTLINE DIMENSIONS

SOLDERING FOOTPRINT


Unit : mm

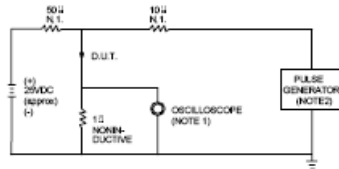
PACKAGE INFORMATION

Device	Package	Shipping
ER3AB--ER3JB	DO-214AA(SMB)	3000/Tape&Reel

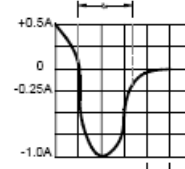
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FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ .22pF.
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω .



SET TIME BASE FOR 10 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

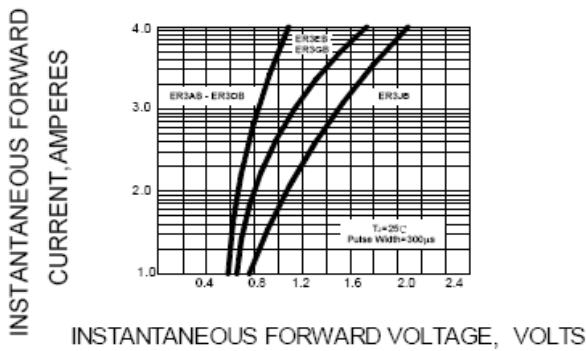


FIG.3 -- FORWARD DERATING CURVE

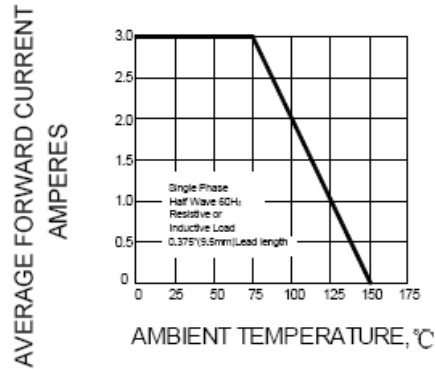


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

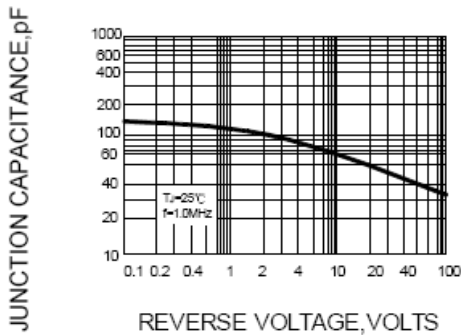


FIG.5 -- PEAK FORWARD SURGE CURRENT

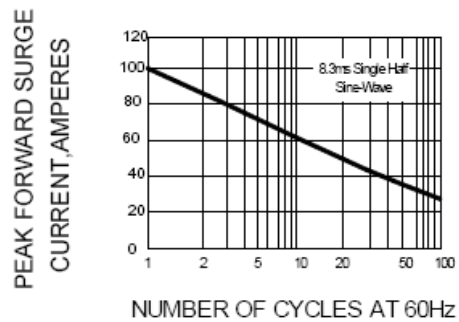


FIG.6 -- TYPICAL REVERSE CHARACTERISTICS

