

SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 3.0 A

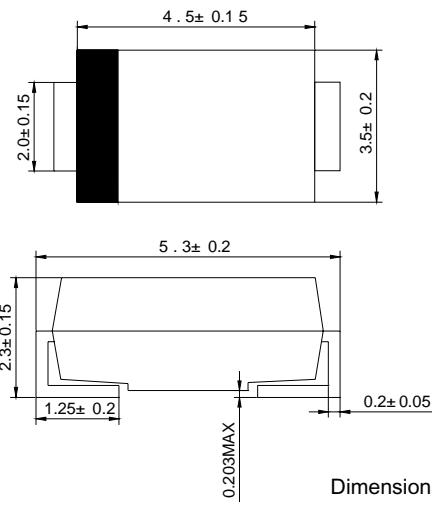
FEATURES

- ◇ 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

MECHANICAL DATA

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

DO - 214AA(SMB)



Dimensions in 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 by 20%.

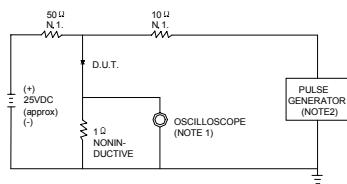
		ER3AB	ER3BB	ER3CB	ER3DB	ER3EB	ER3GB	ER3JB	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current @T _A =75°C	I _{F(AV)}					3.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}				100				A
Maximum instantaneous forward voltage @ 3.0A	V _F		0.95			1.25		1.7	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R			5.0					µA
300									
Maximum reverse recovery time (Note 1)	t _{rr}			35					ns
Typical junction capacitance (Note 2)	C _J			95					pF
Typical thermal resistance (Note 3)	R _{θJA}			40					°C/W
Operating junction temperature range	T _J		- 55 ----- + 150						°C
Storage temperature range	T _{STG}		- 55 ----- + 150						°C

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

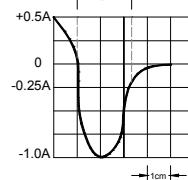
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

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

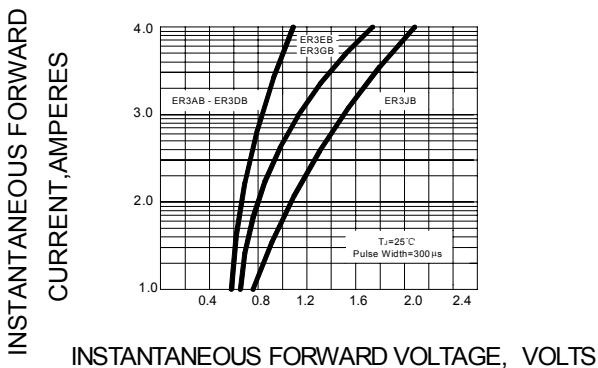


NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ.22pF.
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE=50 Ω.



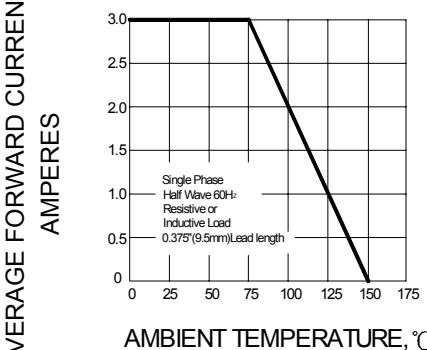
SET TIME BASE FOR 10 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC



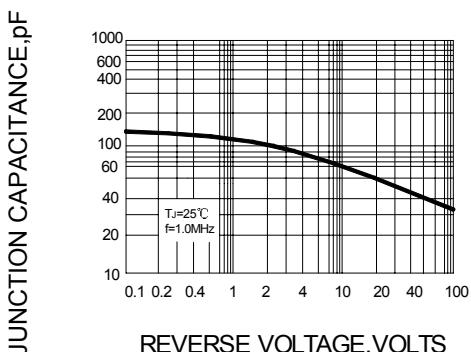
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – FORWARD DERATING CURVE

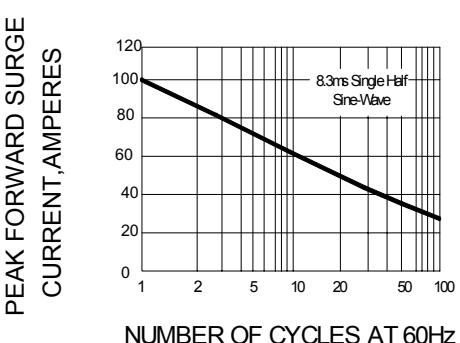


AMBIENT TEMPERATURE, °C

FIG.4 – TYPICAL JUNCTION CAPACITANCE

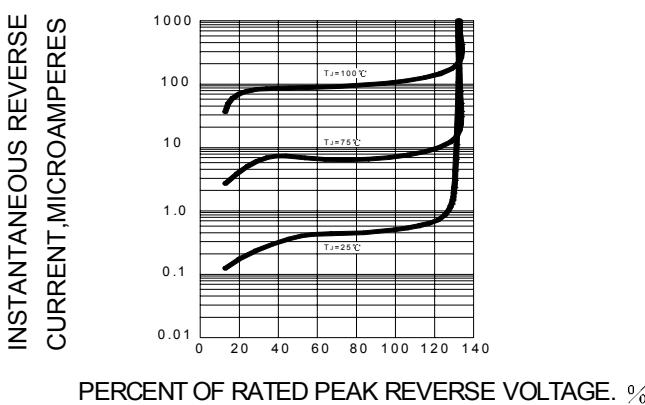


REVERSE VOLTAGE, VOLTS



NUMBER OF CYCLES AT 60Hz

FIG.6 – TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE. %