

SURFACE MOUNT RECTIFIER

VOLTAGE RANGE: 50 --- 400 V
CURRENT: 2.0 A

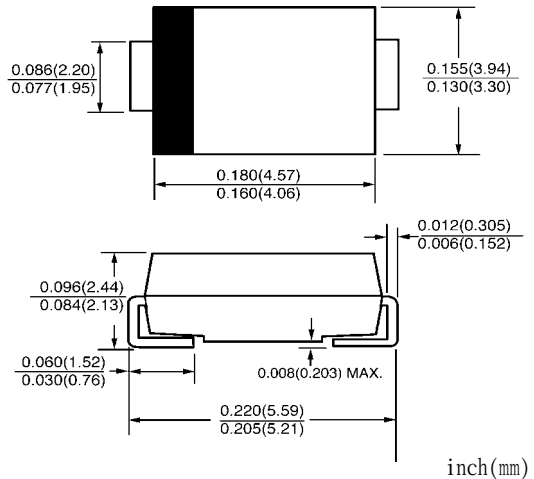
FEATURES

- ◇ 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)



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%.

		ES2A	ES2B	ES2C	ES2D	ES2G	UNITS
Device marking code		EA	EB	EC	ED	EG	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	V
Maximum average forward rectified current @ $T_A=110^{\circ}C$	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^{\circ}C$	I_{FSM}	50.0					A
Maximum instantaneous forward voltage at 2.0 A	V_F	0.92				1.25	V
Maximum reverse current @ $T_A=25^{\circ}C$ at rated DC blocking voltage @ $T_A=125^{\circ}C$	I_R	10 350					μA
Typical reverse recovery time (Note1)	t_{rr}	25				35	ns
Typical junction capacitance (Note2)	C_J	18					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	40					$^{\circ}C/W$
Operating junction temperature range	T_J	- 55 ---- + 150					$^{\circ}C$
Storage temperature range	T_{STG}	- 55 ---- + 150					$^{\circ}C$

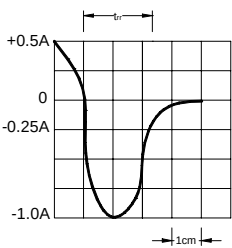
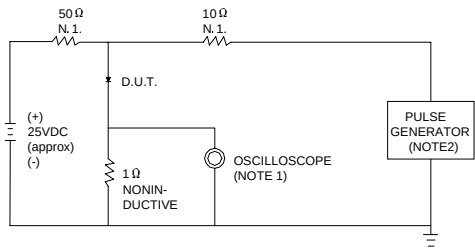
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

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

3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm²) copper pad areas

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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 10/15 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

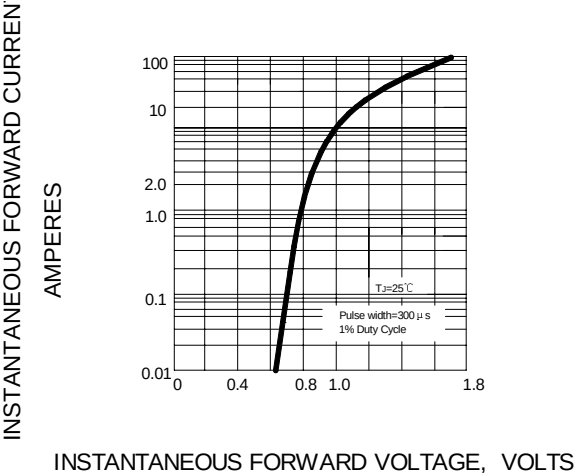


FIG.3 -- FORWARD DERATING CURVE

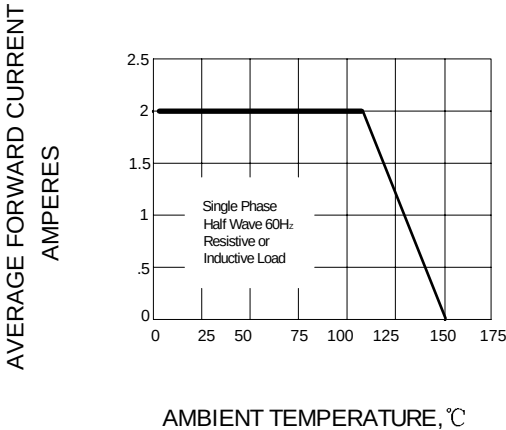


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

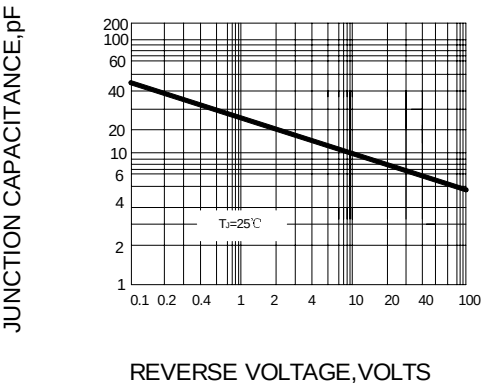


FIG.5 -- PEAK FORWARD SURGE CURRENT

