

**SURFACE MOUNT GLASS PASSIVATED
FAST RECOVERY SILICON RECTIFIER**

VOLTAGE RANGE 400 Volts CURRENT 1.0 Ampere

FEATURES

- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any

MECHANICAL DATA

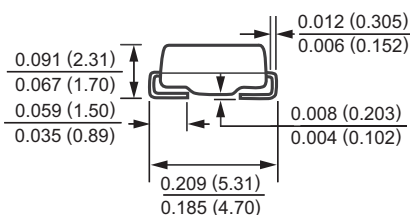
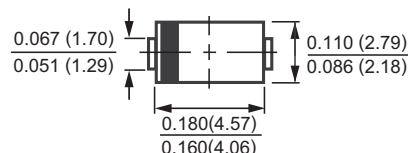
- * Epoxy : Device has UL flammability classification 94V-0

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%.



DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RS1G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	400	Volts
Maximum RMS Voltage	VRMS	280	Volts
Maximum DC Blocking Voltage	Vdc	400	Volts
Maximum Average Forward Rectified Current at TA = 55°C	Io	1.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30	Amps
Typical Current Squared Time	I ² T	3.74	A ² S
Maximum Thermal Resistance	(Note 2) RθJL	30	°C/W
	(Note 3) RθJA	70	°C/W
Typical Junction Capacitance (Note 1)	Cj	15	pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RS1G	UNITS
Maximum Forward Voltage at 1.0A DC	VF	1.3	Volts
Maximum Full Load Reverse Current, Full cycle Average at TA=25°C	IR	50	uAmps
Maximum DC Reverse Current at @TA = 25°C		5.0	uAmps
Rated DC Blocking Voltage @TA = 150°C		2.0	mAmps
Maximum Reverse Recovery Time (Note 4)	trr	150	nSec

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC
 2. Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.
 3. Thermal resistance junction to ambient, 6.0mm² copper pads to each terminal.
 4. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A

RATING AND CHARACTERISTICS CURVES(RS1G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

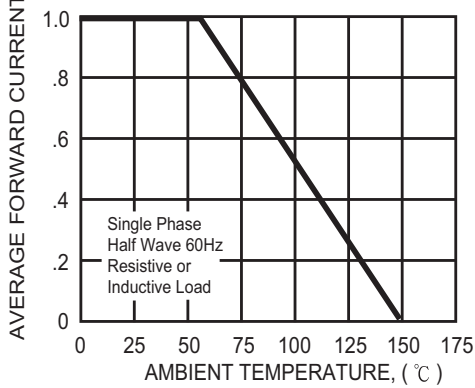


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

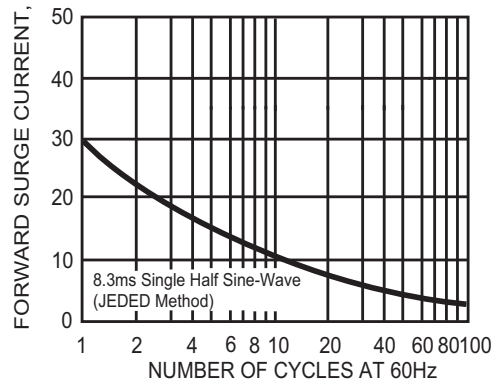


FIG. 3 - MAXIMUM REVERSE CHARACTERISTICS

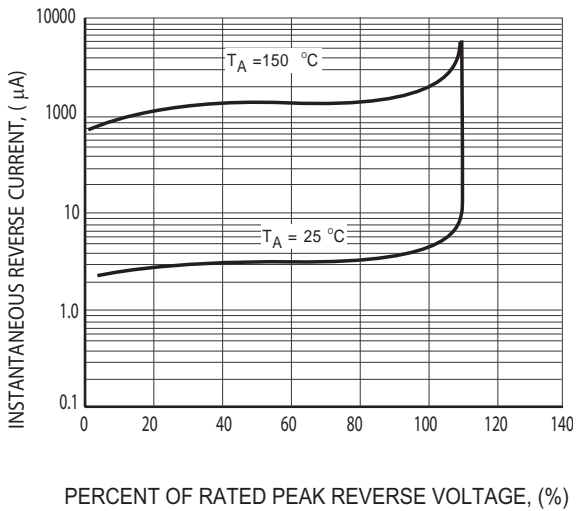


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

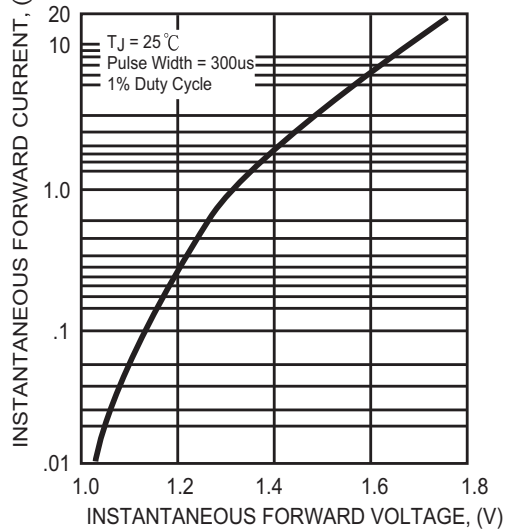


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

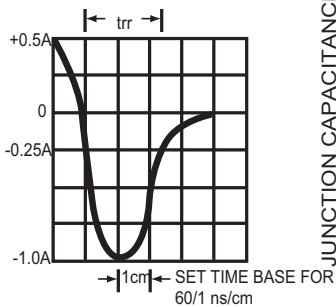
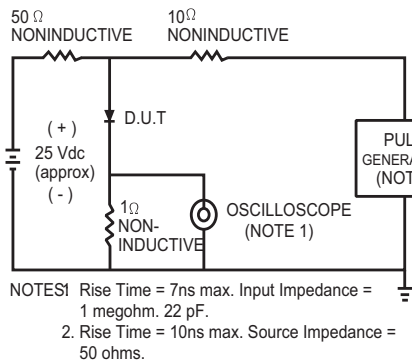
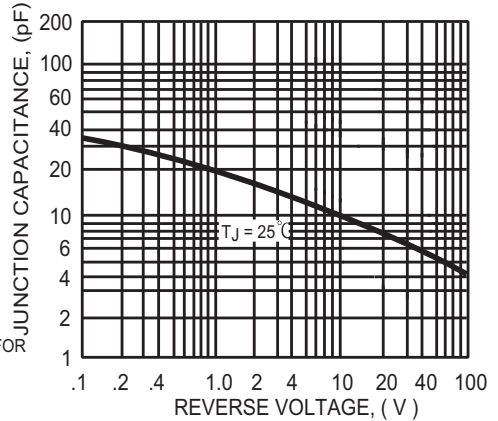
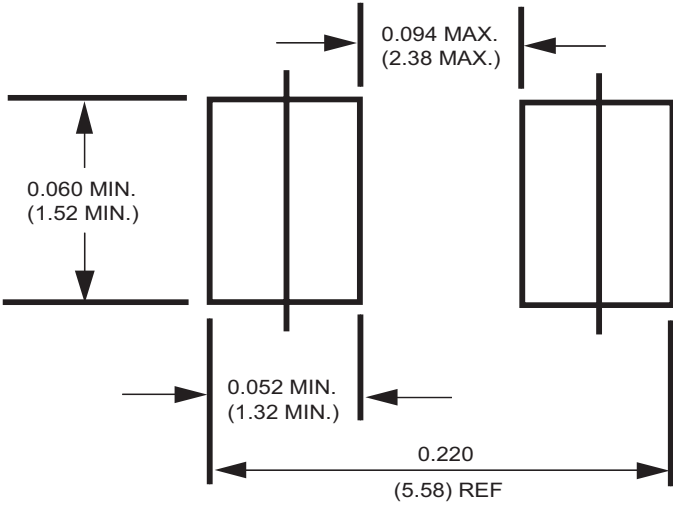


FIG. 6 - MAXIMUM JUNCTION CAPACITANCE

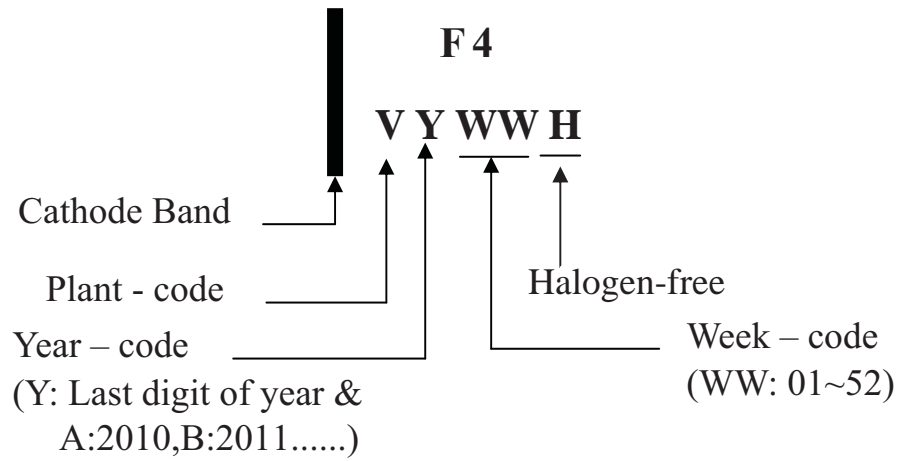


Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMA	-W	7,500	15,000	---	---	330	360*355*360	120,000	15.2

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMA	-T	2,000	8,000	---	---	178	390*205*310	64,000	7.8

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