

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE- 50 to 800 Volts CURRENT - 5.0 Amperes



FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- High temperature soldering : 260°C/10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

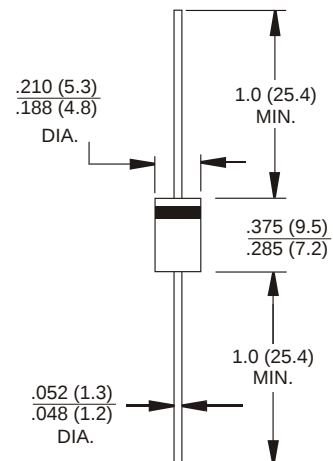
- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-202, Method 208
- Polarity: Color Band denotes cathode end
- Mounting Position: Any
- Weight: 0.04 ounce, 1.12 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

DO-201AD Unit:inch(mm)



	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF57G	SF58G	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	35	70	105	140	210	320	420	640	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at TA=55 °C J	5.0								A
Peak Forward Surge Current, IFM (surge):8.3ms single halfsine-wave superimposed on rated load(JEDEC method)	150.0								A
Maximum Forward Voltage at 5.0A DC	0.95				1.25		1.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0								μA
Maximum DC Reverse Current at Rated DC Blocking Voltage TA=125°C	300								μA
Maximum Reverse Recovery Time(Note 1)	35.0								nS
Typical Junction capacitance (Note 2)	45								pF
Typical Junction Resistance(Note 3) RθJA	25								°C/W
Operating and Storage Temperature Range TJ	-55 to +150								°C

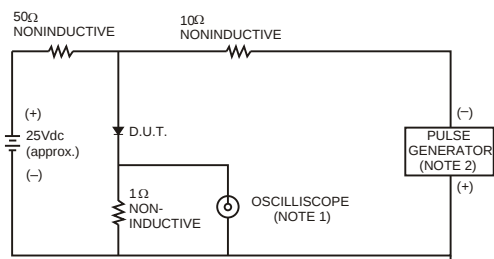
NOTES:

1. Reverse Recovery Test Conditions: IF=.5A, IR=1A, Irr=.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES

SF51G~SF58G

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

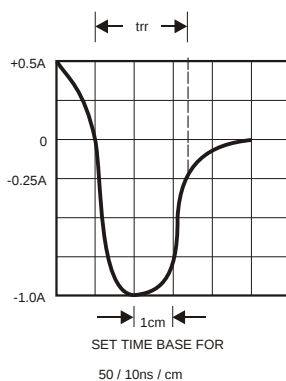


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

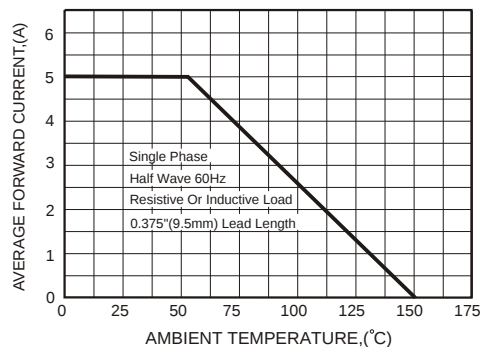


FIG.3-TYPICAL FORWARD CHARACTERISTICS

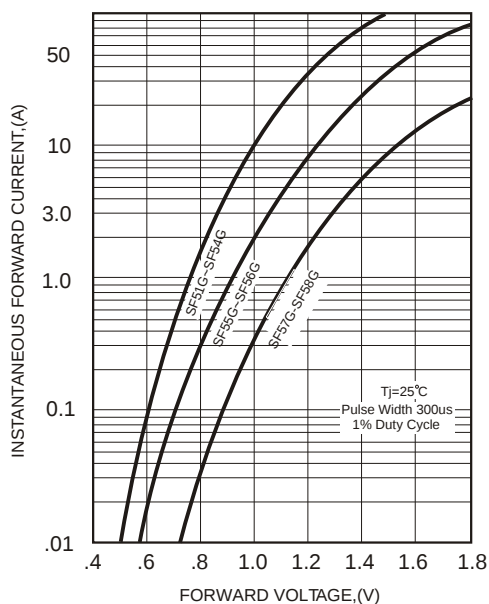


FIG.4-TYPICAL REVERSE CHARACTERISTICS

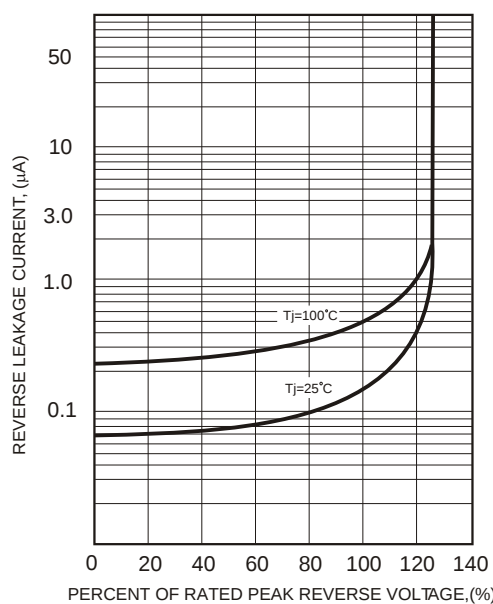


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

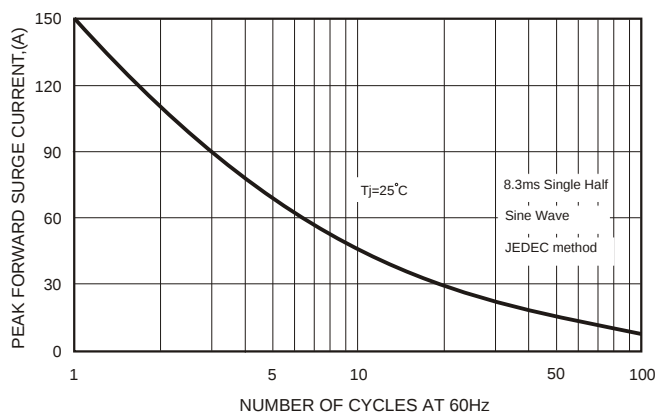


FIG.6-TYPICAL JUNCTION CAPACITANCE

