



SEMICONDUCTOR

# DATA SHEET

## SF11G~SF18G

### SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 800 Volts CURRENT - 1.0 Ampere



#### 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

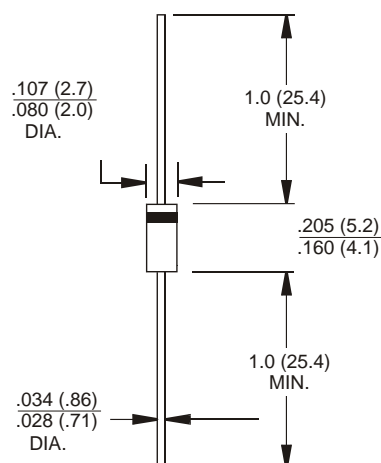
- Case: Molded plastic, DO-41
- Terminals: Axial leads, solderable to MIL-STD-202, Method 208
- Polarity: Color Band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.3 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C J ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

DO-41 Unit:inch(mm)



	SYMBOLS	SF11G	SF12G	SF13G	SF14G	SF15G	SF16G	SF17G	SF18G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	800	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	320	420	640	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at TA=55°C J	I(AV)	1.0								A
Peak Forward Surge Current, IFM (surge): 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	IFSM	30.0								A
Maximum Forward Voltage at 1.0A DC	VF	0.95			1.25		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	5.0								uA
Maximum DC Reverse Current at Rated DC Blocking Voltage TA=125°C	IR	150								uA
Maximum Reverse Recovery Time(Note 1)	TRR	35.0								nS
Typical Junction capacitance (Note 2)	CJ	17								pF
Typical Junction Resistance(Note 3)	RθJA	50								°C/W
Operating and Storage Temperature Range TJ	TJ,TSTG	-55to +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

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### RATING AND CHARACTERISTIC CURVES

