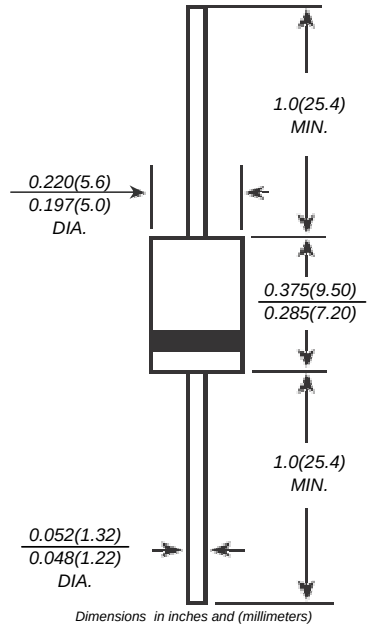
SF51G THRU SF58G

GLASS PASSIVATED SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 5.0 Ampere

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

- Low power loss, high efficiency
- Low leakage
- Low forward voltage drop
- High current capability
- High speed switching
- High current surge
- High reliability
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

Case: JEDEC DO-201AD, Molded plastic
Terminals: Solderable per MIL-STD-750，Method 2026
Epoxy: UL94V-0 rate flame retardant
Polarity: Color band denotes cathode end
Approx. Weight: 0.04 ounce, 1.10 grams
Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

PARAMETER	*SYMBOLS*	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF58G	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Average Rectified current at T_A =55℃	$I_{(AV)}$	5.0							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							Amps
Maximum Forward Voltage at I_F=5.0A	V_F	0.95				1.25		1.75	Volts
Maximum DC reverse current at rated DC blocking voltage at T_A=25℃	I_R	5.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35							nS
Typical Junction Capacitance (NOTE 2)	C_J	100				50			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	30							℃/W
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-65 to +150							℃

Note: 1. Reverse recovery condition IF=0.5A,IR=1.0A,Irr=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length,P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

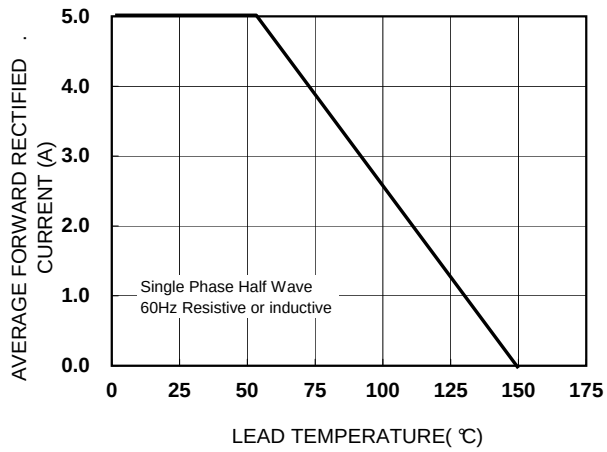

FIG. 2--MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

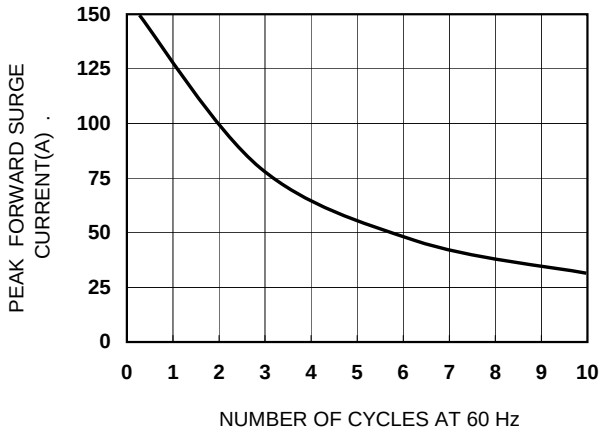

FIG. 3-TYPICAL REVERSE CHARACTERISTICS

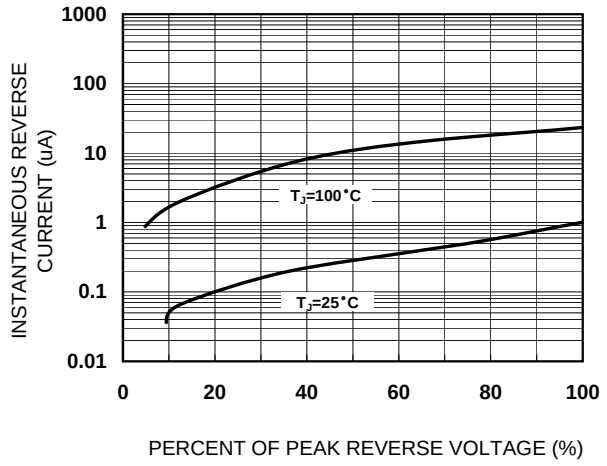

FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

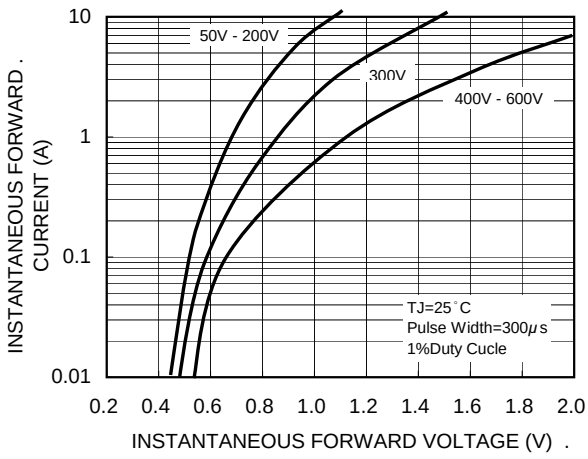

FIG. 5-TYPICAL JUNCTION CAPACITANCE