

Super Fast Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

Case : Molded plastic body

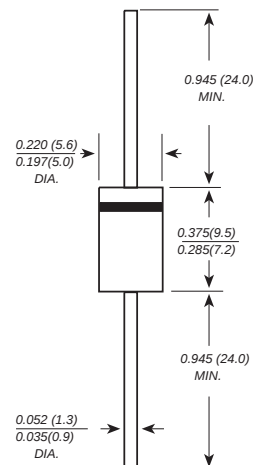
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0345 ounce, 0.98 grams

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise 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	SF57G	SF58G	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	5.0								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	175.0								A
Maximum instantaneous forward voltage at 5.0A	V _F	0.95				1.25		1.7		V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 500								μA
Maxinum reverse recovery time(Note 1)	T _{rr}	35								ns
Typical junction capacitance (Note2)	C _J	78.0								pF
Typical thermal resistance	R _{qJA}	45.0								°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150								°C

Note: 1. Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

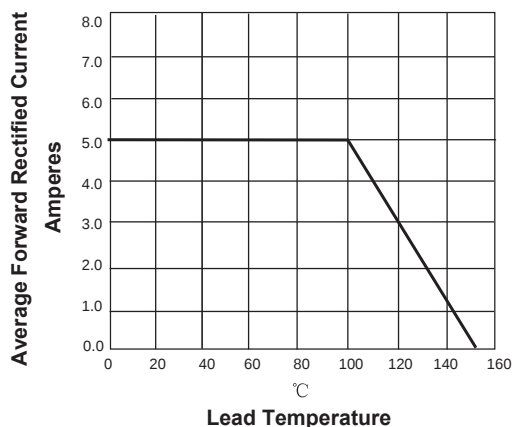


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

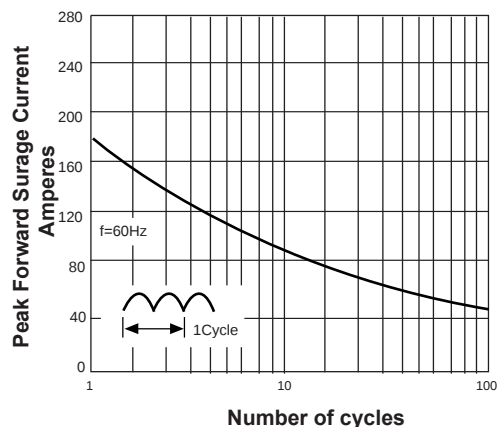


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

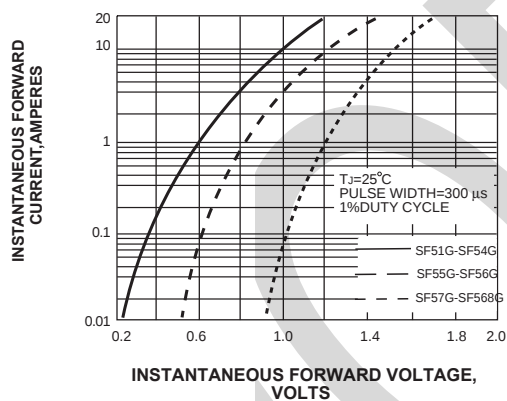
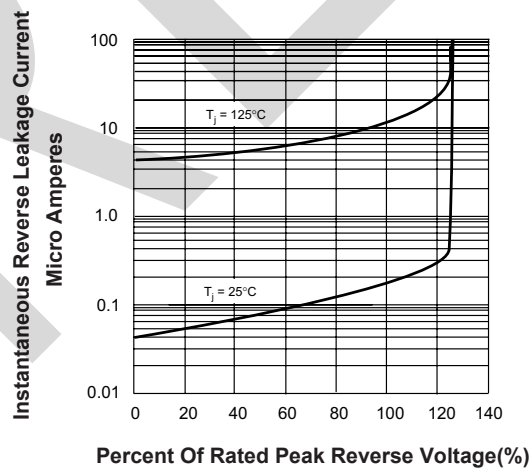
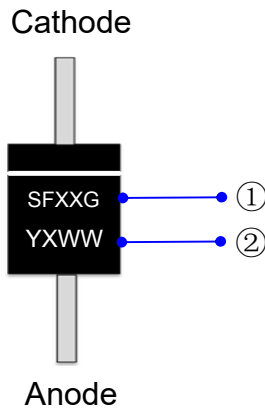


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Information



①Product model : SF51G~SF58G

②PDC information:

Y X WW

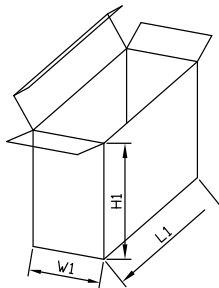
WW:Week code(01 to 53)

X:Internal identification code

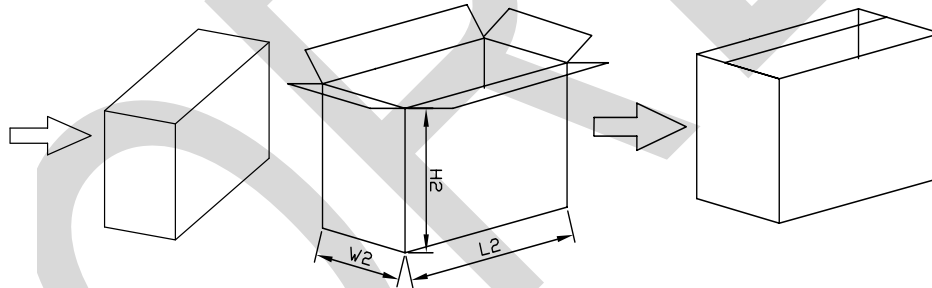
Y:Year code(ex:0=2020)

Packaging Information

1.Inside Box



2.Outside Box



Packaging Information

NO	UNIT	Inside Box			Outside Box		
Size	mm	L1	W1	H1	L2	W2	H2
		255	75	145	415	280	320
QTY	PCS	Smallest package,1000PCS/carton			10,000PCS/carton,10 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm						