SF21 THRU SF28

Reverse Voltage - 50 to 600 Volts Forward Current - 2.0 Ampere

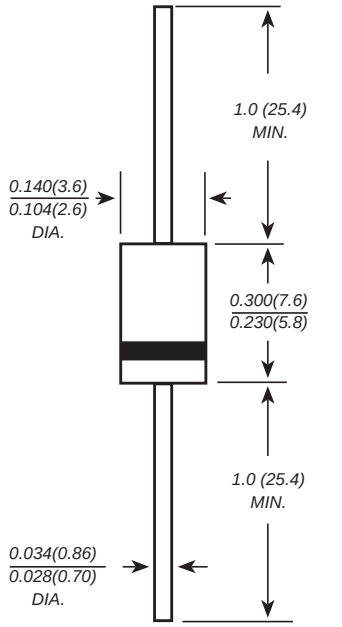
SUPER FAST RECTIFIERS

Features

DO-15

RoHS COMPLIANT

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Super fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/ 10 seconds at terminals



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-15 Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.014 ounce, 0.40 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter / Marking Code	SYMBOLS	HY SF21	HY SF22	HY SF23	HY SF24	HY SF25	HY SF26	HY SF28	UNITS
Maximum repetitive peak reverse voltage	V_{RMM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current at T_A=55℃	$I_{(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	50.0							A
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25		1.7	V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	trr	35							ns
Typical junction capacitance (NOTE 2)	C_J	60.0				30.0			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	50.0							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150							℃

Note: 1.Reverse recovery condition I_F=0.5A,I_R=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

Ratings And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

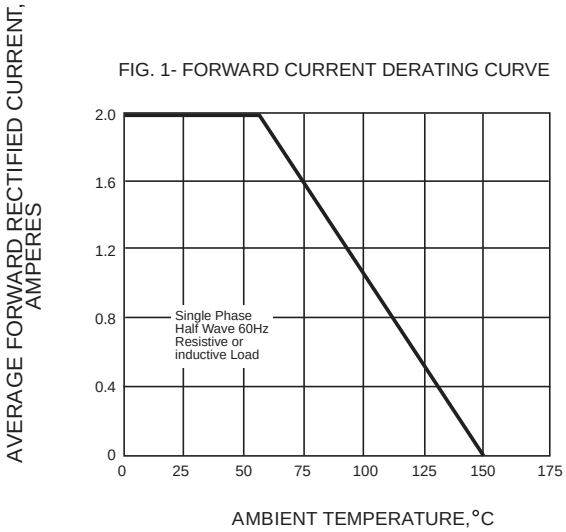


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

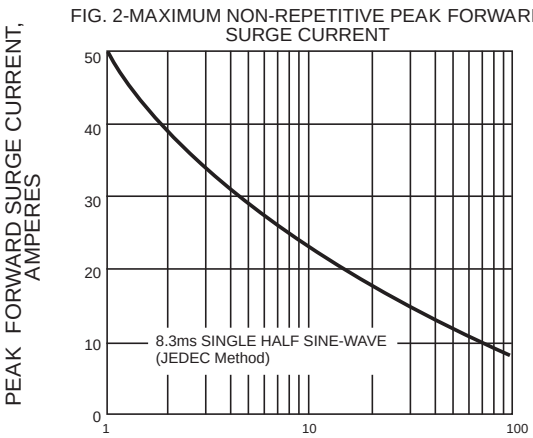


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

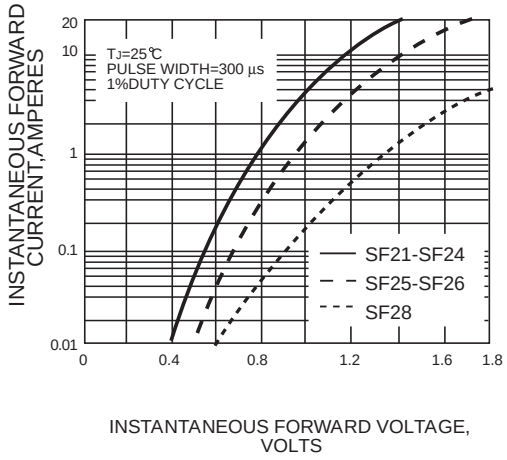


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

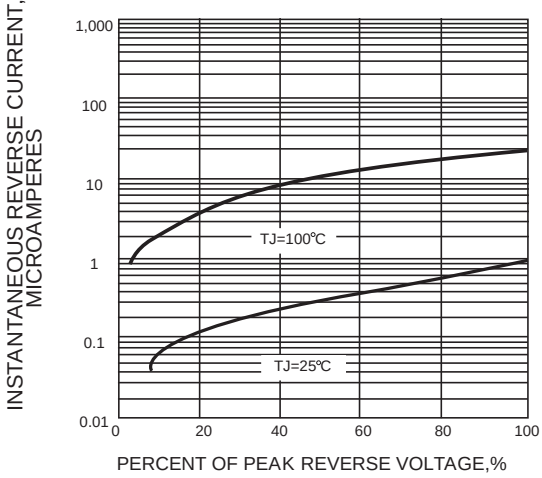


FIG. 5-TYPICAL JUNCTION CAPACITANCE

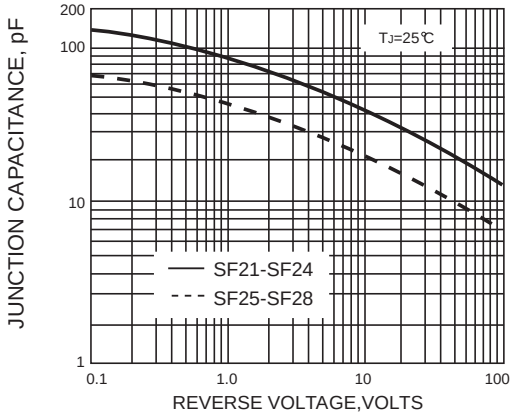
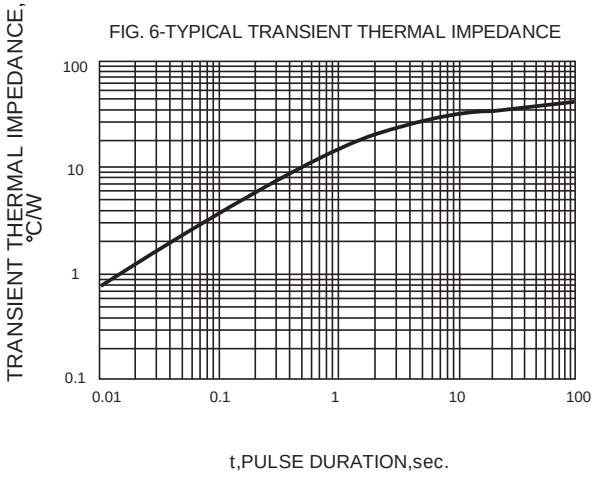


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.