



SF21 THRU SF28

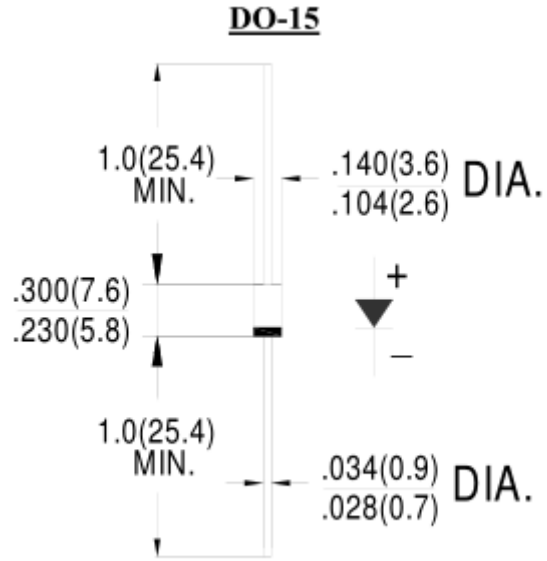
2.0AMP. Super Fast Rectifiers

FEATURE

- .High current capability,
- .Low forward voltage drop
- .Low power loss, high efficiency
- .High surge capability
- .High temperature soldering guaranteed
260 °C /1 0sec/0.375" lead length at 5 lbs tension
- Superfast recovery time for high efficiency.

MECHANICAL DATA

- .Case: Molded plastic
- .Epoxy: UL94V-0 rate flame retardant
- .Lead: MIL-STD- 202E, Method 208 guaranteed
- .Polarity:Color band denotes cathode end
- .Packaging: 12mm tape per EIA STD RS-481
- .Mounting position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25 °C, unless otherwise stated)

Type Number	SYM BOL	SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	500	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}	500	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375"(9.5mm)lead length at $T_L = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50.0								A
Maximum Forward Voltage at 2.0A DC	V_F	0.95			1.3		1.7			V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC blocking voltage $T_a = 125\text{ }^\circ\text{C}$	I_R	5.0 100.0								μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35								ns
Typical Junction Capacitance (Note 2)	C_J	60					30			pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	75								$^\circ\text{C/W}$
Storage Temperature	T_{STG}	-55 to +150								$^\circ\text{C}$
Operation Junction Temperature	T_J	-55 to +125								$^\circ\text{C}$

Note:

1. Reverse Recovery test Condition: $I_f = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$;
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. P.C.B. Mounted on 0.2×0.2 " ($5.0 \times 5.0\text{mm}$) [0.013mm thick] Copper Pad Area.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

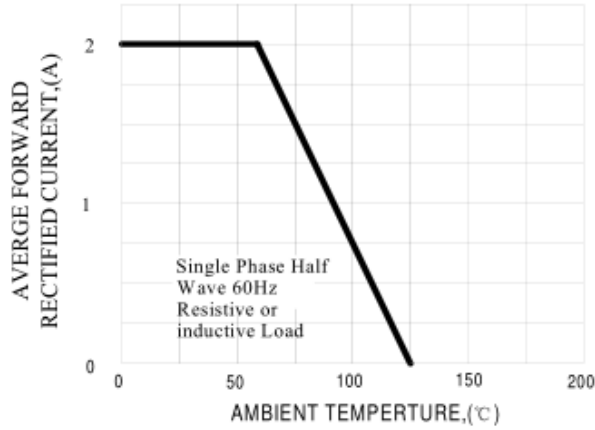


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

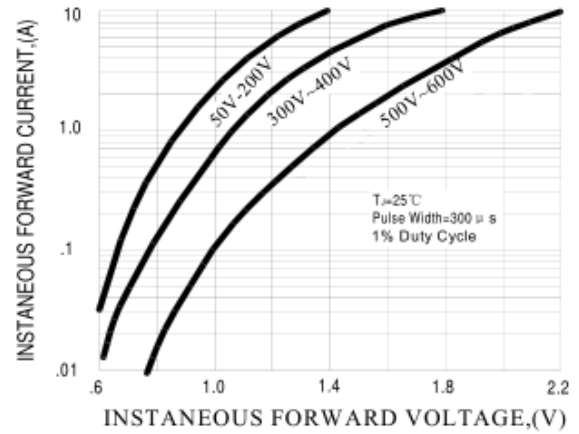


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

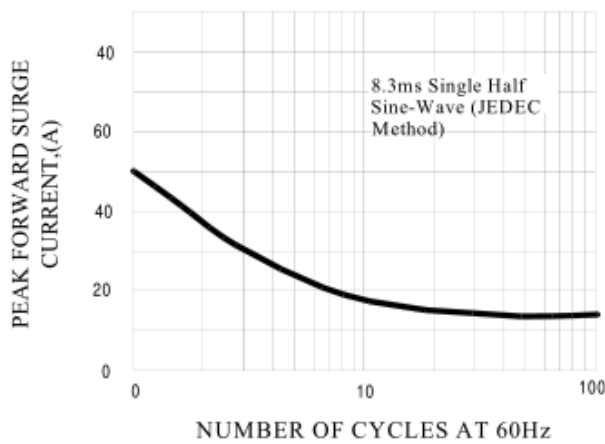


FIG.4-TYPICAL REVERSE CHARACTERISTICS

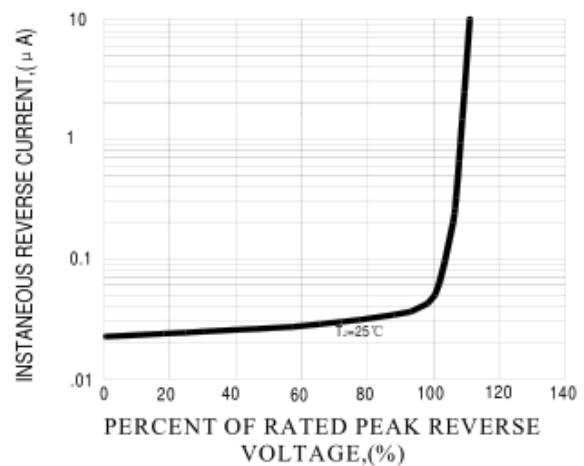


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

