

SF161C ~ SF166C

PRV : 50 ~ 400 Volts

Io : 16 Ampere

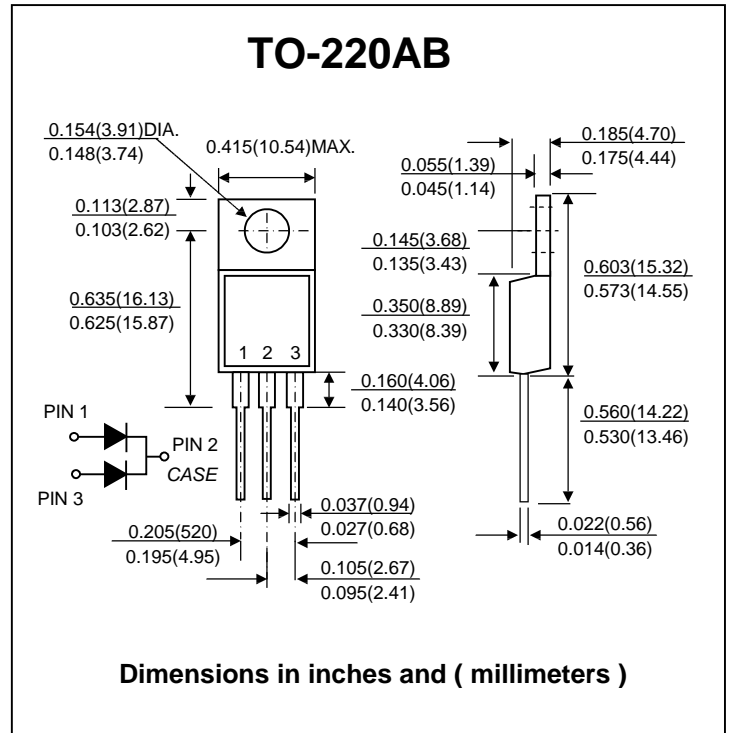
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Super fast switching speed
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight : 2.24 grams (Approximately)

SUPER FAST RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	SF161C	SF162C	SF163C	SF164C	SF165C	SF166C	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	V
Maximum Working Reverse Voltage	V _{RWM}	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	V
Maximum Average Forward Current Total Device, (Rated V _R), T _c = 125°C	I _{F(AV)}	8.0 (Per Leg) 16 (Total Device)						A
Maximum Peak Rectified Forward Current 8.3 ms single half sine-wave, superimposed on rated load (JEDEC method)	I _{FSM}	150						A
Maximum Instantaneous Forward Voltage at I _F = 8 A	V _F	1.0			1.35			V
Maximum Reverse Current at T _c = 25 °C	I _R	10						μA
Rated DC Blocking Voltage T _c = 100 °C	I _{R(H)}	500						μA
Typical Thermal Resistance, Junction to Case	R _{θJC}	3.0						°C/W
Typical Junction Capacitance ⁽¹⁾	C _J	50			30			pF
Maximum Reverse Recovery Time ⁽²⁾	T _{rr}	35			50			ns
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 150						°C

Notes :

- (1) Measured at 1 MHz and applied reverse voltage of 4.0 volts.
- (2) Reverse Recovery Test Conditions : I_F = 0.5A, I_R = 1A ; I_{rr} = 0.25 A

RATING AND CHARACTERISTIC CURVES (SF161C ~ SF166C)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

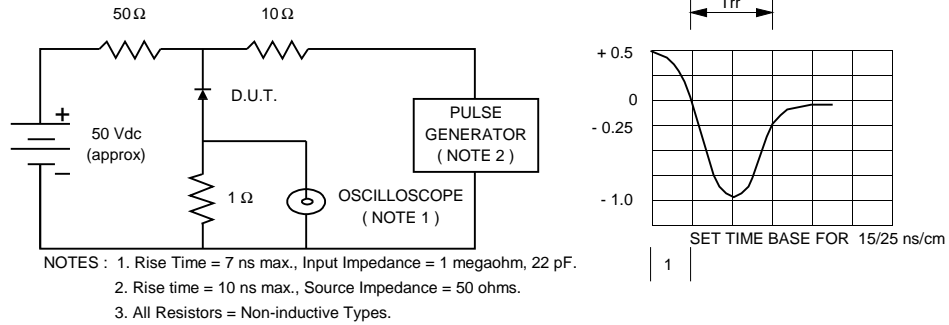


FIG. 2 - DERATING CURVE FOR OUTPUT CURRENT

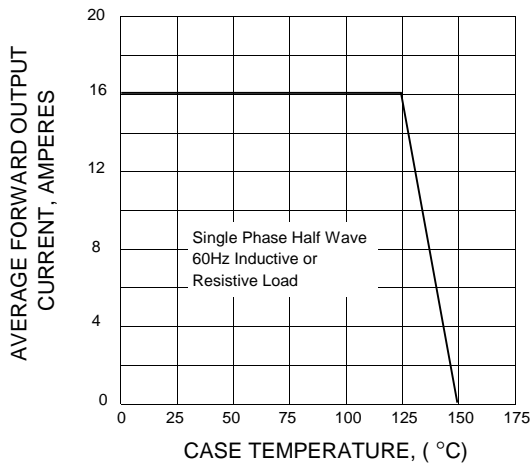


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

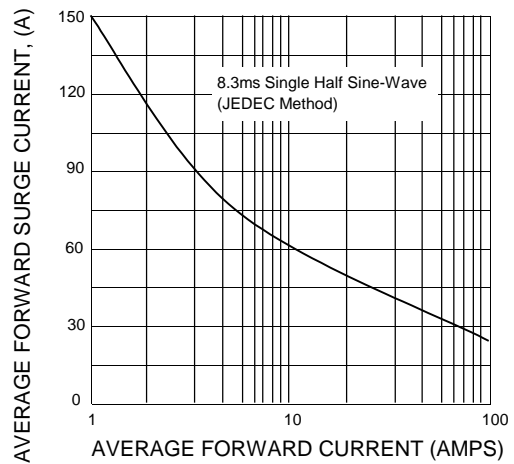


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

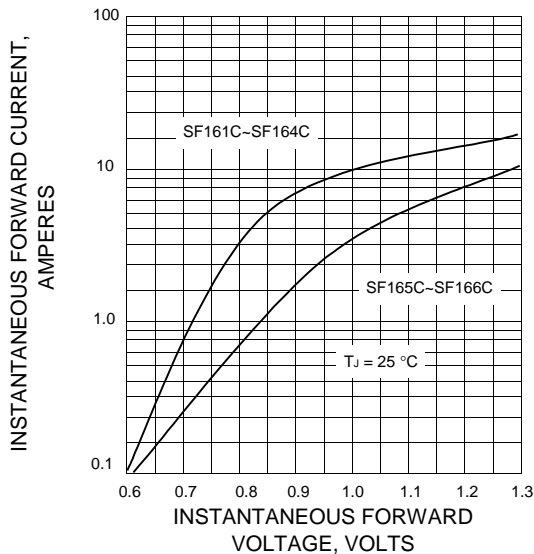


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

