



VOLTAGE RANGE

50 to 600 Volts

CURRENT

20.0 Ampere

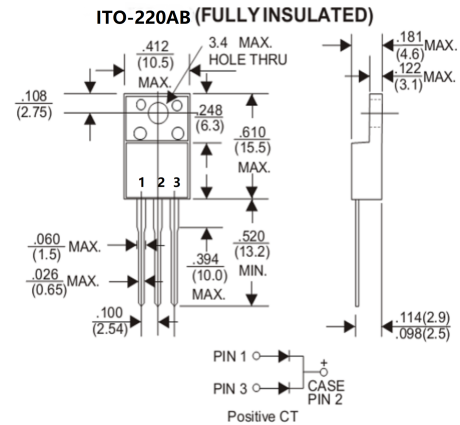


FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * Low Power Loss, High Efficiency
- * Ultrafast 35 Nanosecond Recovery times

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.98 grams



Dimensions in inches and (millimeters)

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%

Type Number	Symbol	SF 2005FCT	SF 2010FCT	SF 2020FCT	SF 2040FCT	SF 2060FCT	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current	IF	20					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave	IFSM	125					A
Maximum Instantaneous Forward Voltage @10A	VF	0.98		1.3		1.7	V
Maximum Reverse Current @ Rated VR TA=25 °C TA=125 °C	IR	5 250					μA
Typical Junction Capacitance (Note 1)	Cj	150					pF
Typical Thermal Resistance(Note 2)	RθJA	30					°C/W
Operating and Storage Temperature Range	TJ	-65 ~ +150					°C
Maximum reverse recovery time (Note 3)	Trr	35					nS

NOTE1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

NOTE2. Leads maintained at ambient temperature at a distance of 9.5mm from the case

NOTE3. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A. See figure 5.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

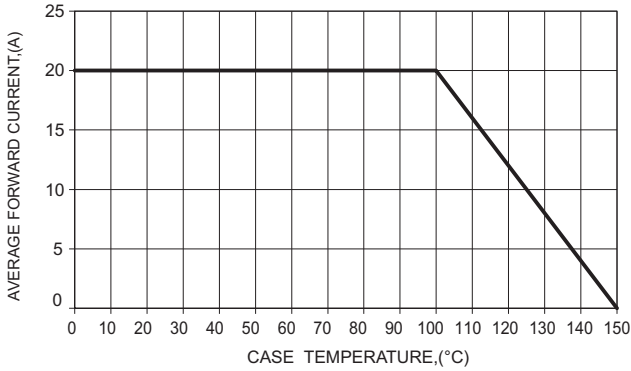


FIG.2-TYPICAL FORWARD CHARACTERISTICS

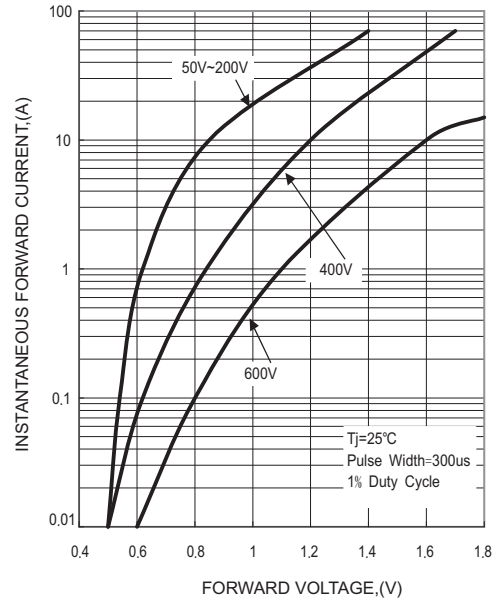


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

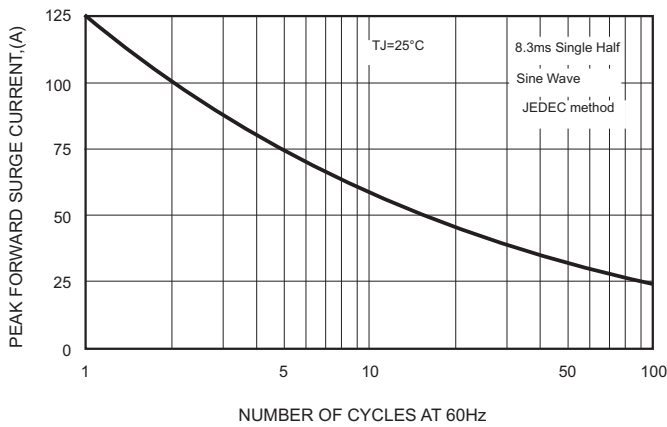


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

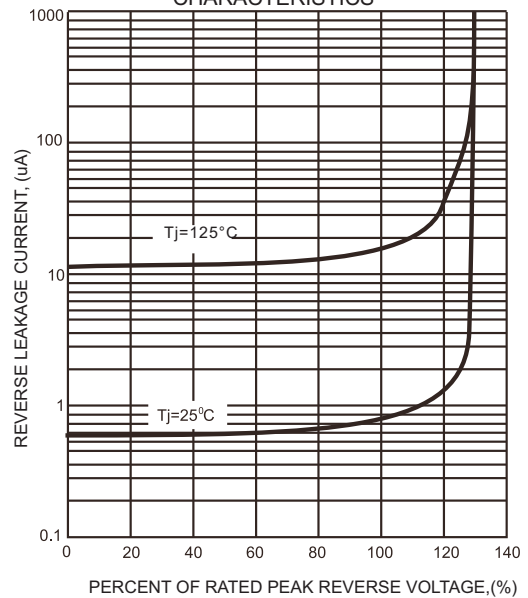
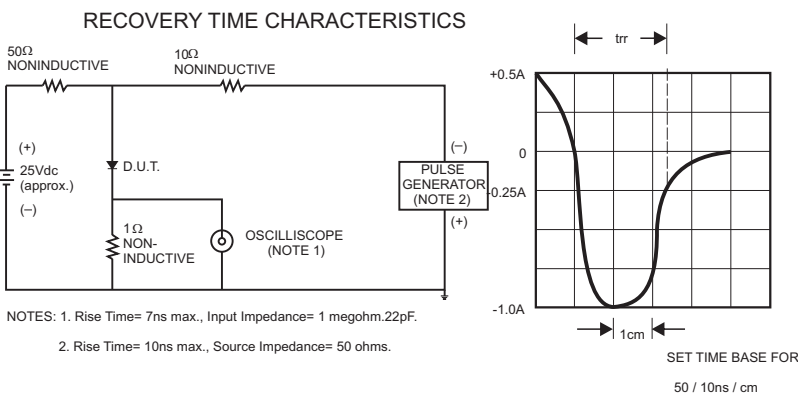


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



Package	Packing	Box Size LxWxH(mm)	Quantity(pcs/box)	Carton Size LxWxH(mm)	Quantity(pcs/carton)
TO-220	50pcs/Tube	558x148x38	1000	565x225x175	5000