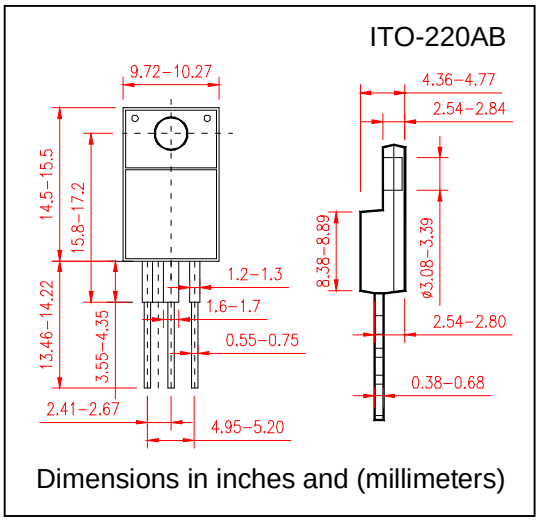
SUPER FAST GLASS PASSIVATED RECTIFIER

SFF161C THRU SFF166C

VOLTAGE RANGE **50 to 400 Volts**
CURRENT **16.0 Ampere**

FEATURES

- Super fast switching speed
- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High surge capacity
- High temperature soldering guaranteed
  250℃/10 second, 0.16″ (4.06mm) lead length
- Also available with common Anode, add an “A” suffix,
  i.e. SFF161CA, add as a doubler, add a “D” suffix,
  i.e. SFF161CD
- Also available in the single chip version, SFF81



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202E method 208C
- Polarity: as marked
- Mounting position: Any, 5 in-lbs Torque Max
- Weight: 0.08ounce, 2.24 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	SFF 161C	SFF 162C	SFF 163C	SFF 164C	SFF 165C	SFF 166C	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	Volts
Maximum Average Forward Rectified Current At Tc=100℃	$I_{(AV)}$	16.0						Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	125						Amps
Maximum Instantaneous Forward Voltage per at 8.0A	V_F	0.975				1.4		Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 25℃	I_R	10						μA
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 125℃	I_R	500						μA
Maximum Reverse Recovery Time Test conditions I_F =0.5A, I_R =1.0A, I_{RR} =0.25A	t_{rr}	35				50		nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	40						pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.0						℃/W
Operating Junction Temperature	T_J	(-55 to +150)						℃
Storage Temperature Range	T_{STG}	(-55 to +150)						℃

Notes:
1. Unit mounted on heatsink

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RATING AND CHRACTERISTIC CURVES SFF161C THRU SFF166C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

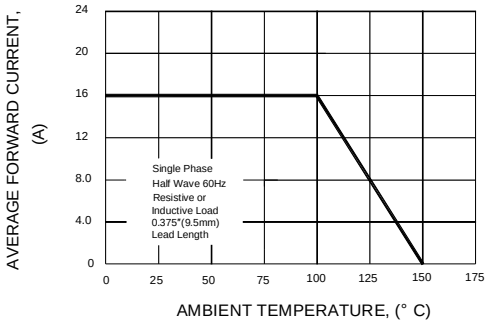


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

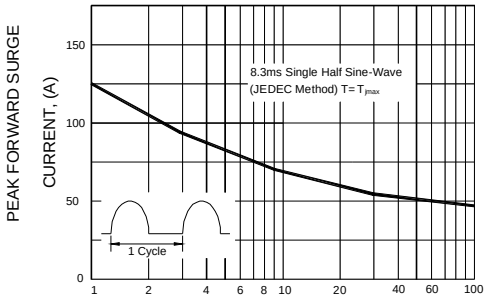


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

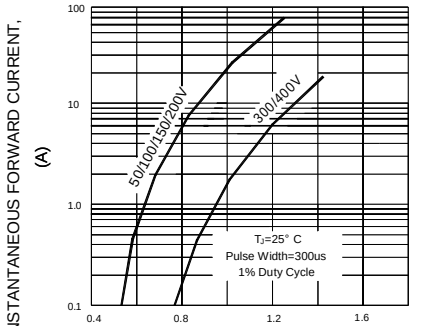


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

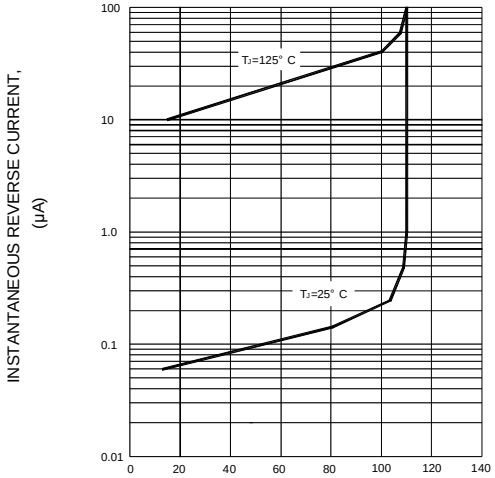
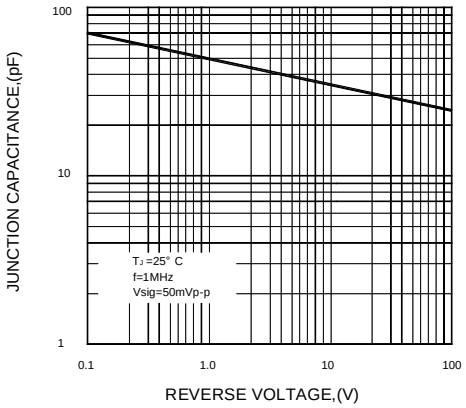
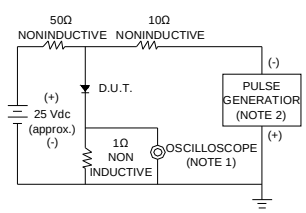
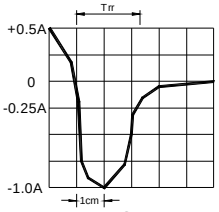


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





SET TIME BASE FOR 50/100ns/cm

NOTES : 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms