

GLASS PASSIVATED SUPER FAST RECTIFIER

VOLTAGE RANGE 300 Volts CURRENT 60 Amperes

FEATURES

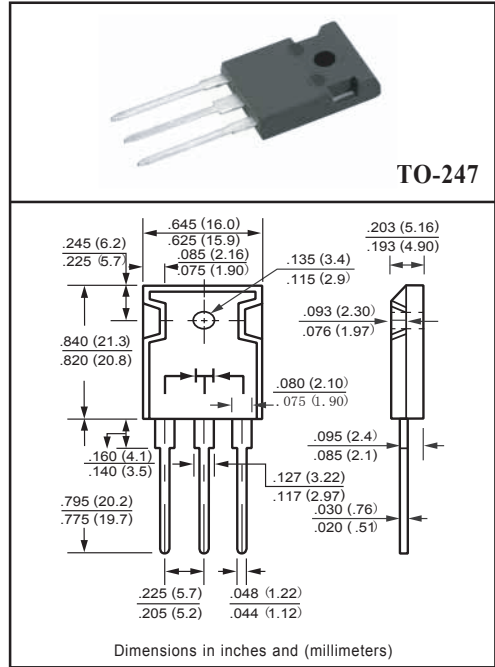
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * Super fast switching speed
- * High reliability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: TO-247 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 6.10 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	SF605C	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	300	Volts
Maximum RMS Voltage	V_{RMS}	210	Volts
Maximum DC Blocking Voltage	V_{DC}	300	Volts
Maximum Average Forward Rectified Current at $T_C = 95^\circ\text{C}$	I_O	60	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300	Amps
Typical Current Squared Time	I^2t	373.5	A^2S
Typical Thermal Resistance	$R_{\theta JC}$	0.9	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	SF605C	UNITS
Maximum Instantaneous Forward Voltage at 30A DC	V_F	1.45	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	20	uAmps
		200	
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50	nSec

- NOTES : 1. Test Conditions: $I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A$
 2. Suffix "A" =Common Anode.
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTIC CURVES (SF605C)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

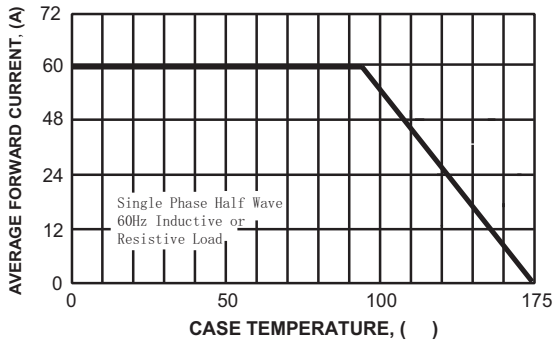


FIG. 2 - MAXIMUM REVERSE CHARACTERISTICS

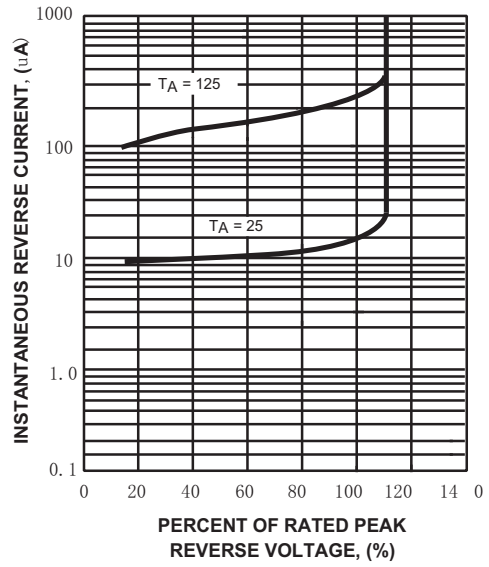


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

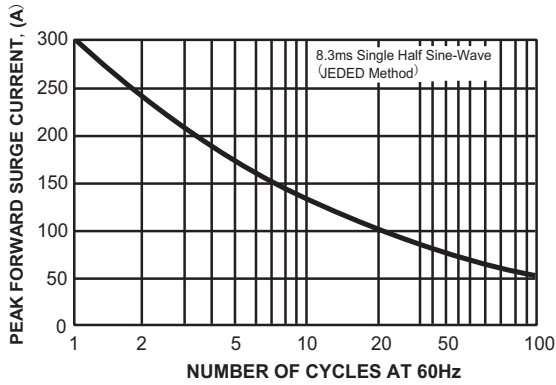
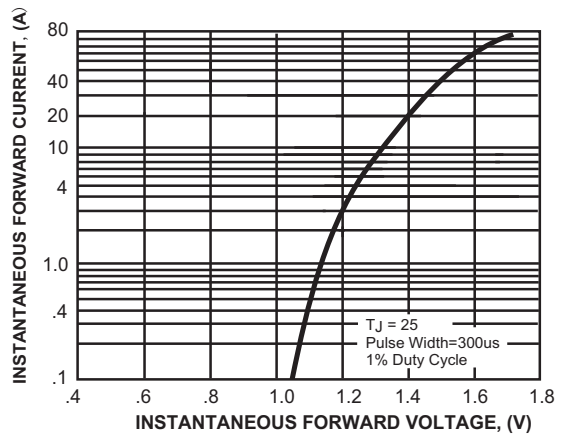


FIG. 4 - MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS



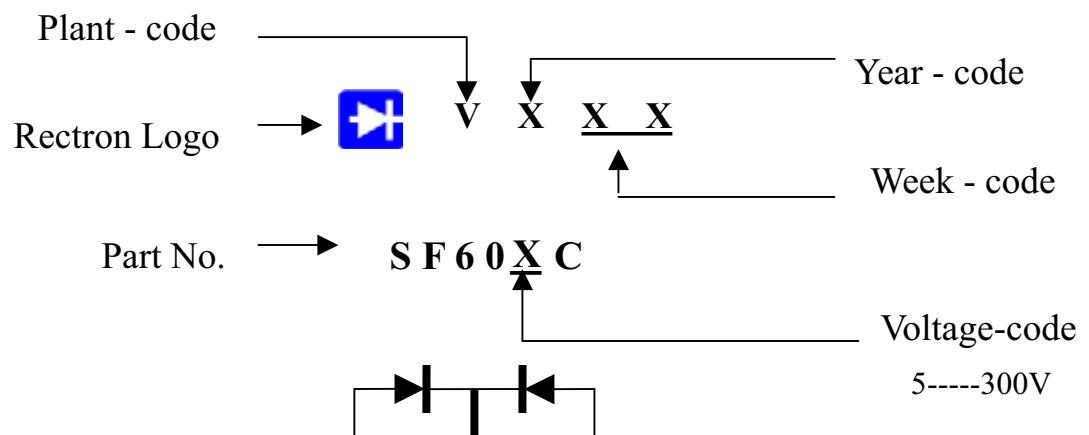


Attachment information about SF605C

1. Internal Circuit



2. Marking on the body



3. Items marked on the inner box and carton

3.1 On the box (for -C)

CUSTOMER
TYPE
LOT NO.
QUANTITY
Q.A.
DATE

3.2 On the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
TO-247	-C	900	550*140*92	572*308*1200	1800	7.60

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