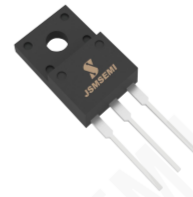


FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC TO-220F, molded plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Weight: 0.06 ounce, 1.67 grams
- Mounting position: Any



TO-220F

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

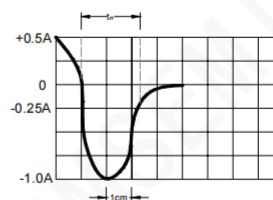
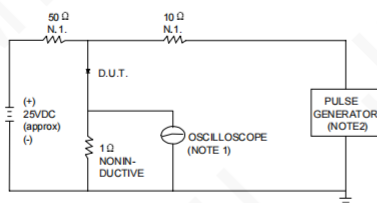
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		SFF 2010CTG	SFF 2020CTG	SFF 2030CTG	SFF 2040CTG	SFF 2050CTG	SFF 2060CTG	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	100	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	70	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	100	200	300	400	500	600	V
Maximum average forward rectified current @ $T_C=100^{\circ}C$	$I_{F(AV)}$	20						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^{\circ}C$	I_{FSM}	150						A
Maximum instantaneous forward voltage @ 10 A	V_F	0.98		1.3		1.7		V
Maximum reverse current @ $T_A=25^{\circ}C$ at rated DC blocking voltage @ $T_A=150^{\circ}C$	I_R	5.0 250		10 500				μA
Maximum reverse recovery time (Note1)	t_{rr}	35						ns
Operating junction temperature range	T_J	- 55 ----- + 150						$^{\circ}C$
Storage temperature range	T_{STG}	- 55 ----- + 150						$^{\circ}C$

NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = 0.25\text{A}$.

RATING AND CHARACTERISTIC CURVES

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



SET TIME BASE FOR 15 ns/cm

NOTES: 1. RISE TIME = 7 ns MAX. INPUT IMPEDANCE = 1 MΩ, 22 pF.
 2. RISE TIME = 10 ns MAX. SOURCE IMPEDANCE = 50 Ω.

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

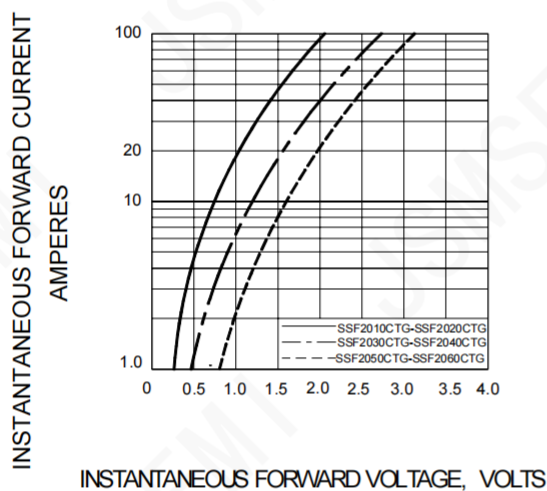


FIG.3 -- PEAK FORWARD SURGE CURRENT

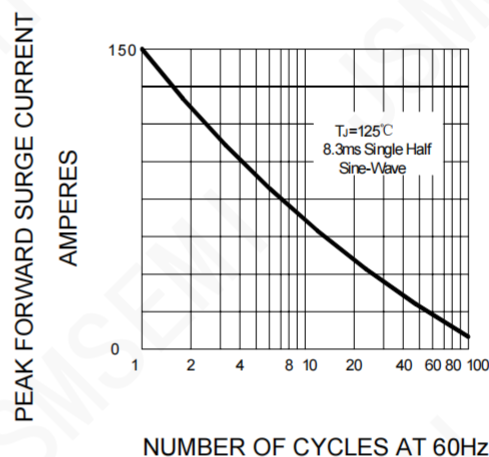
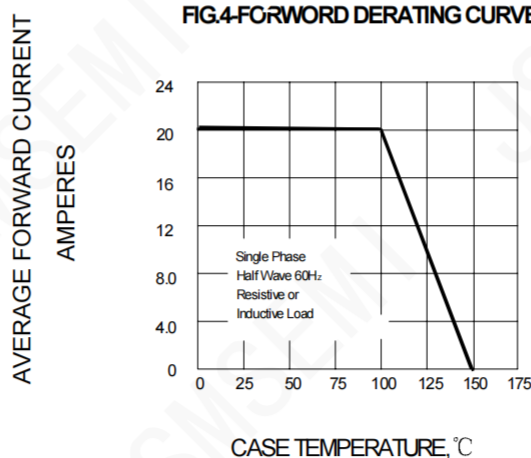
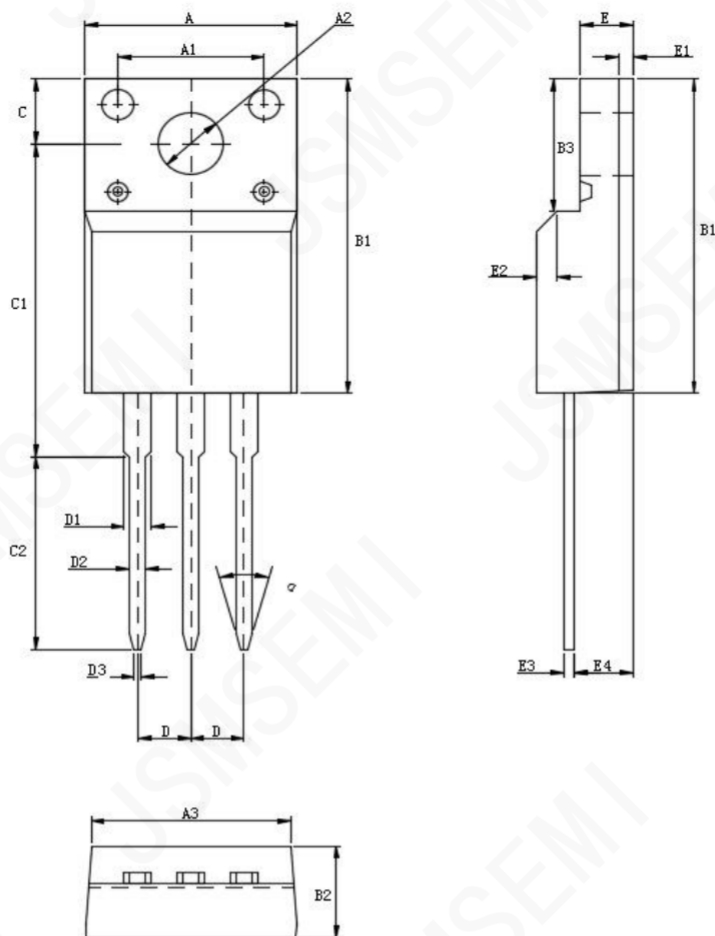


FIG.4-FORWARD DERATING CURVE



TO-220F



SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	9.80		10.60	D		2.54	
A1		7.00		D1	1.15		1.55
A2	2.90		3.40	D2	0.60		1.00
A3	9.10		9.90	D3	0.20		0.50
B1	15.40		16.40	E	2.24		2.84
B2	4.35		4.95	E1		0.70	
B3	6.00		7.40	E2		1.0×45°	
C	3.00		3.70	E3	0.35		0.65
C1	15.00		17.00	E4	2.30		3.30
C2	8.80		10.80	α (度)		30°	