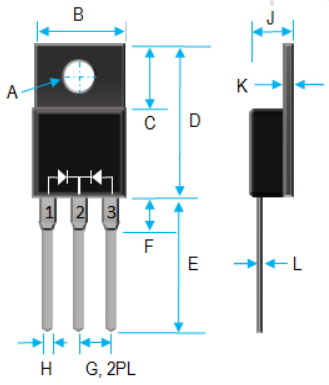
SFF100-03CT THRU SFF100-06CT SPECIFICATIONS

Rev. A

10A DUAL SUPER FAST RECOVERY RECTIFIER



Dim.	Value Inch[mm] Min.	Max.
A	0.118 [3.0]	0.134 [3.4]
B	0.381 [9.7]	0.406[10.3]
C	0.248 [6.3]	0.272 [6.9]
D	0.583 [14.8]	0.606 [15.4]
E	0.512 [13.0]	0.548 [13.9]
F	---	0.161 [4.1]
G	0.095[2.41]	0.105[2.67]
H	0.019 [0.50]	0.028 [0.7]
J	0.165 [4.2]	0.189 [4.8]
K	0.099 [2.5]	0.130 [3.3]
L	---	0.032 [0.8]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. HIGH VOLTAGE
3. GLASS PASSIVATED CHIP JUNCTION
4. LOW FORWARD VOLTAGE DROP
5. HIGH SURGE CURRENT CAPABILITY
6. SUPER FAST SWITCHING
7. LOW THERMAL RESISTANCE
8. CASE: TRANSFER MOLDED, ITO-220AB
9. POLARITY: AS MARKED
10. WEIGHT: 2.05 GRAMS
11. TERMINALS: PER MIL-STD-202 METHOD 208
12. RoHS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT	I_O	10	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	125	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	C_J	65	pF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	2.2	℃/W
MAXIMUM REVERSE CURRENT @ 25℃	I_R	10	uA
MAXIMUM REVERSE CURRENT @ 100℃	I_R	100	uA
MAXIMUM REVERSE RECOVERY TIME	T_{RR}	35	nS

1. C_j MEASURED @ 1 MHZ AND APPLIED REVERSE VOLTAGE 0F 4.0 VOLTS
2. THERMAL RESISTANCE JUNCTION TO CASE PER LEG MOUNTED ON HEAT SINK
3. REVERSE RECOVERY TEST CONDITIONS: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
4. MAXIMUM FORWARD VOLTAGE @ 4A PER LEG

PART NUMBER	MAX RECURRENT PK REV VOLTAGE V_{RRM} (V)	MAX RMS VOLTAGE V_{RMS} (V)	MAX DC BLOCKING VOLTAGE V_{DC} (V)	MAX FWD VOLTAGE V_F (V)
SFF100-03CT	300	210	300	1.3
SFF100-04CT	400	280	400	1.3
SFF100-05CT	500	350	500	1.7
SFF100-06CT	600	420	600	1.7

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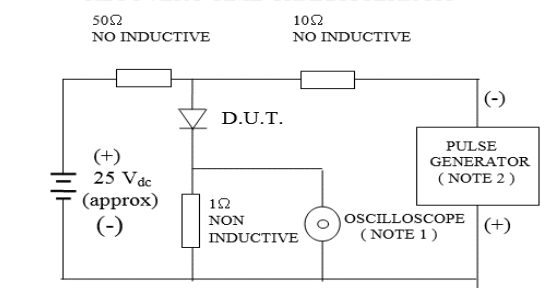
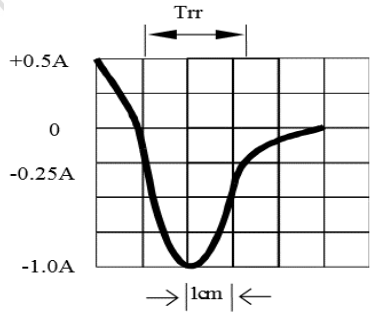
RATING AND CHARACTERISTIC CURVES

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



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF
2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50 OHMS



SET TIME BASE
FOR 10/20 ns/cm

FIG. 2 -TYPICAL FORWARD CURRENT DERATING CURVE

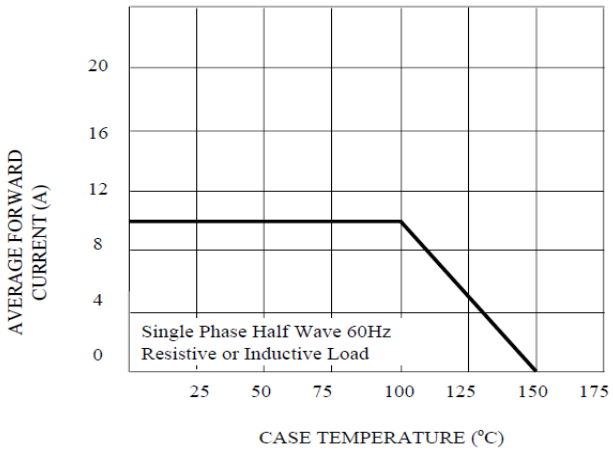


FIG. 3 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

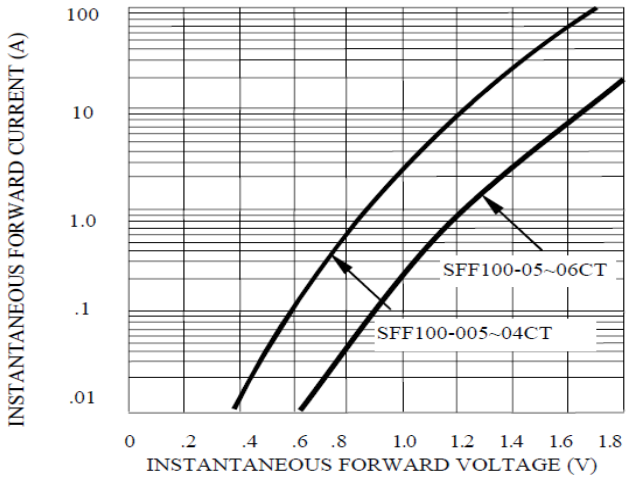


FIG. 4 -TYPICAL REVERSE CHARACTERISTICS

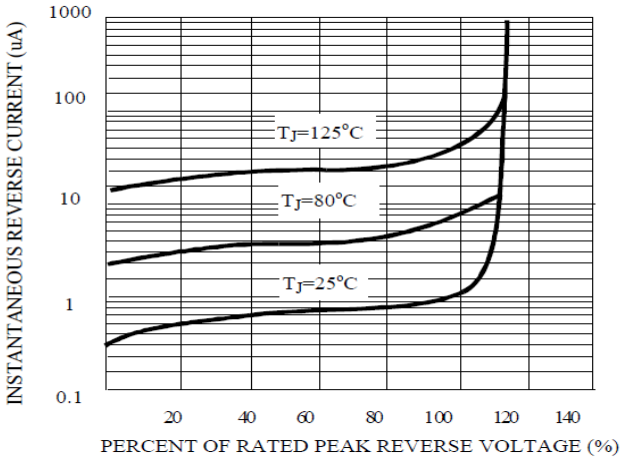


FIG. 5 -TYPICAL JUNCTION CAPACITANCE

