迪一電子®

SF1010~SF1060

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE	100 to 600 Volts
CURRENT	10 Amperes

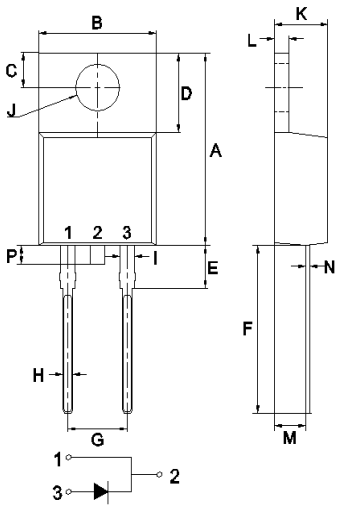
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability.
- High surge capability
- Ultra fast recovery time,high voltage.
- Lead free in comply with EU RoHS.

MECHANICAL DATA

- Case: TO-220AC molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

TO-220AC



TO-220AC Unit:mm

DIM	MIN	MAX
A	14.80	15.80
B	9.57	10.57
C	2.54	2.94
D	5.80	6.80
E	2.95	3.95
F	12.70	13.40
G	4.88	5.28
H	0.51	1.11
I	0.97	1.57
J	3.54φ	4.14φ
K	4.27	4.87
L	1.07	1.47
M	2.03	2.92
N	0.30	0.64
P	0.00	1.50

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%

PARAMETER	SYMBOL	SF1010	SF1020	SF1030	SF1040	SF1050	SF1060	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 Current at T_C = 100°C	$I_{F(AV)}$	10						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	90						A
Maximum Forward Voltage at 10A	V_F	1		1.3		1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_J=25°C T_J=125°C	I_R	10 500						μA
Typical Junction Capacitance (Note 1)	C_J	200						pF
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35						ns
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3						°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150						°C

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Irr=0.25A.
3. Thermal resistance from Junction to case.

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RATING AND CHARACTERISTIC CURVES

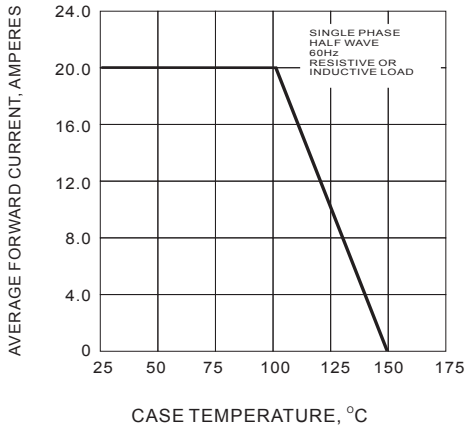


Fig.1 FORWARD CURRENT DERATING CURVE

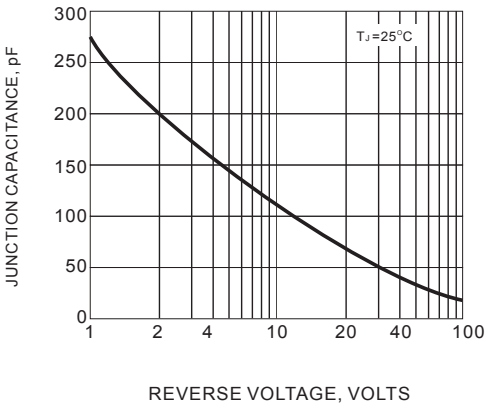


Fig.2 TYPICAL JUNCTION CAPACITANCES

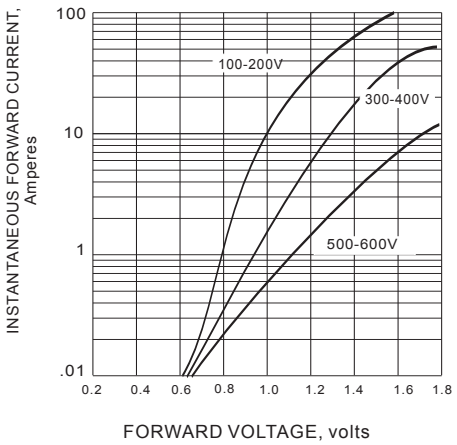


Fig.3 FORWARD CHARACTERISTICS

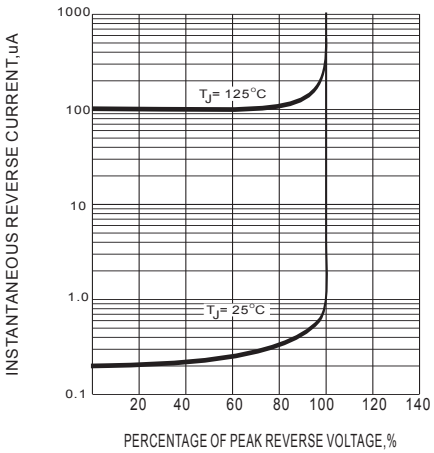


Fig.4 TYPICAL REVERSE CHARACTERISTICS

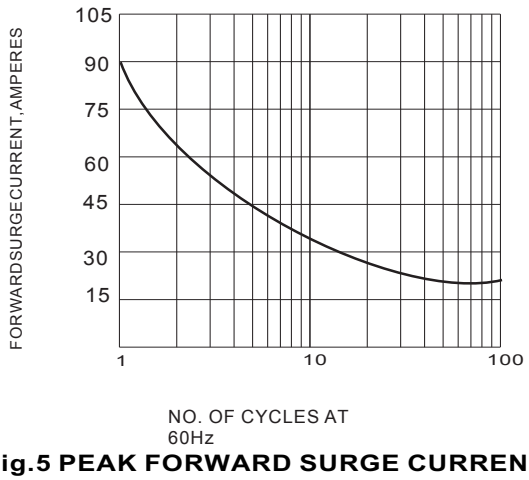


Fig.5 PEAK FORWARD SURGE CURRENT

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