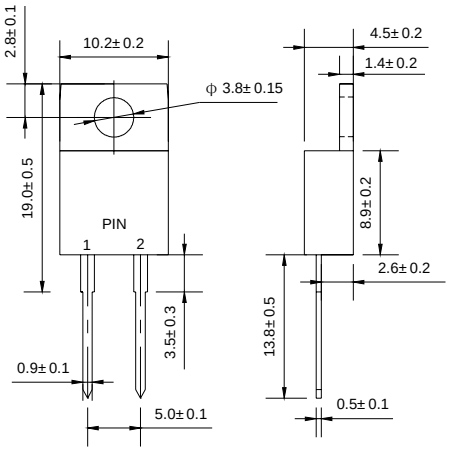
GF505-GF560

Super Fast Rectifiers

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 5.0 A

TO-220AC



Dimensions in millimeters

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-220AC,molded plastic
- ◇ Polarity: As marked
- ◇ Weight:0.064 ounces,1.96 gram
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		GF 505	GF 510	GF 520	GF 530	GF 540	GF 560	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	V
Maximum average forw ard rectified current @T_C=100℃	$I_{F(AV)}$	5.0						A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	60						A
Maximum instantaneous forw ard voltage @ 5.0A	V_F	0.98				1.3	1.7	V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=150℃	I_R	5.0 250				10.0 500		μA
Maximum reverse recovery time (Note1)	t_{rr}	30						ns
Operating junction temperature range	T_J	- 55 ----- + 150						℃
Storage temperature range	T_{STG}	- 55 ----- + 150						℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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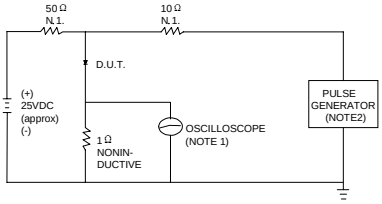
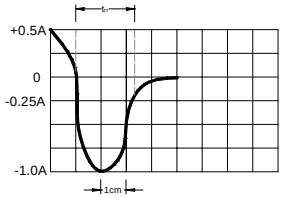
Ratings AND Charactieristic Curves

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





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

SET TIME BASE FOR 15 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

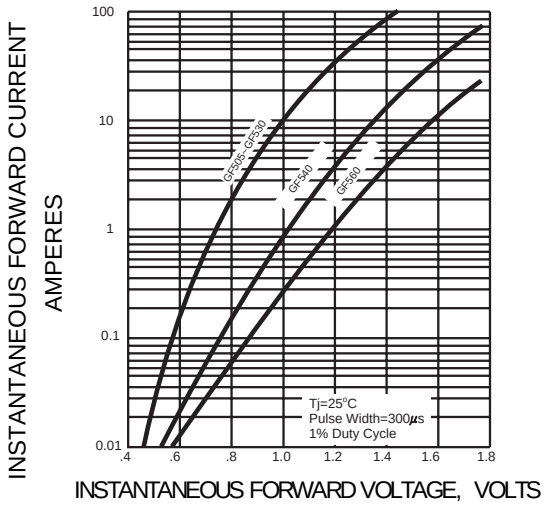


FIG.3 – PEAK FORWARD SURGE CURRENT

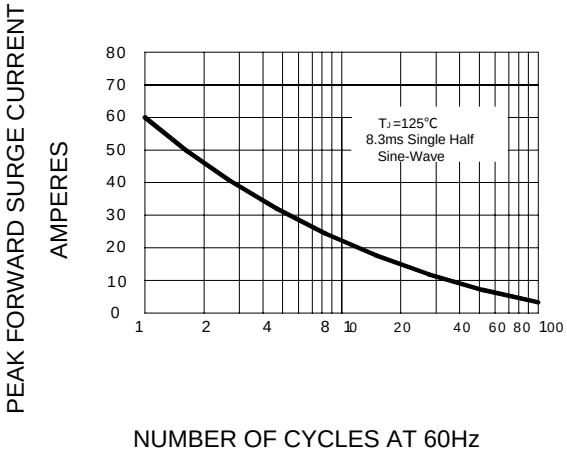
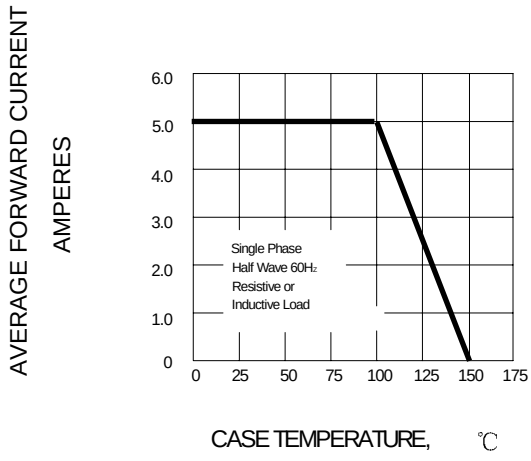



FIG.4-FORWORD DERATING CURVE