FML-G13S/FML-G14S

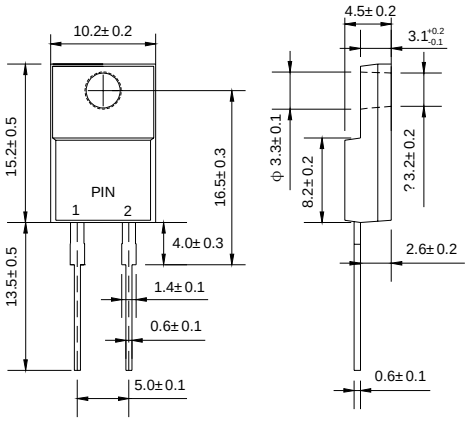
Super Fast Rectifiers

VOLTAGE RANGE: 300~400 V
CURRENT: 5.0 A

ITO-220AC

Features

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop,low switching losses
- High surge capability
- For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- The plastic material carries U/L recognition 94V-0



Dimensions in millimeters

Mechanical Data

- Case:JEDEC ITO-220AC
- Polarity: As marked
- Weight:0.056 ounces,1.587 gram
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,50 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		FML- G13S	FML- G14S	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	300	400	V
Maximum RMS voltage	V_{RMS}	210	280	V
Maximum DC blocking voltage	V_{DC}	300	400	V
Maximum average forward rectified current @T_C=100℃	$I_{F(AV)}$	5.0		A
Peak forw ard surge current 10ms single half-sine-wave superimposed on rated load	I_{FSM}	70		A
Maximum instantaneous forward voltage (IF=5.0A)	V_F	1.3		V
Maximum reverse current @TJ=25 ℃ at rated DC blocking voltage @TJ=100℃	I_R	0.1 0.2		mA
Maximum reverse recovery time (Note1)	trr	35		ns
Typical thermal resistance (Note2)	$R_{\theta JC}$	4.0		℃/W
Operating junction temperature range	T_J	- 55 ---- + 150		℃
Storage temperature range	T_{STG}	- 55 ---- + 150		℃

NOTE: 1. Measured with IF=0.5A, IR=1A, Irr=0.25A.
2. Thermal resistance junction to case.

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Ratings AND Charactieristic Curves

FIG.1 -- TYPICAL FORWARD CHARACTERISTIC

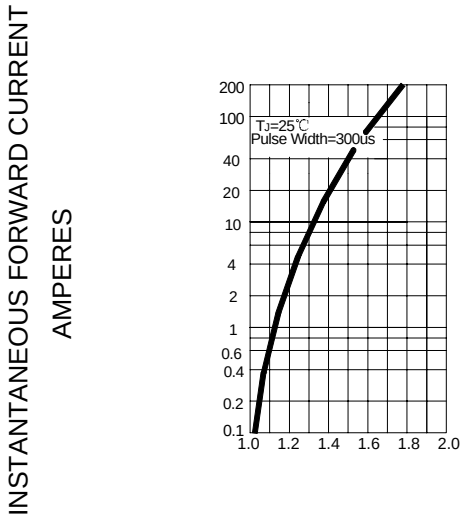


FIG.2-- FORWARD DERATING CURVE

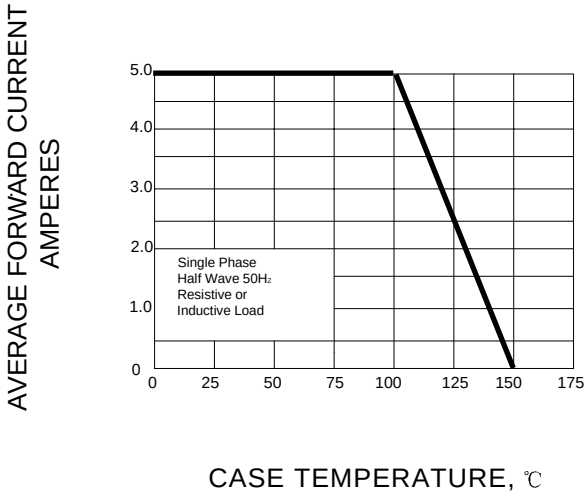


FIG.3-- PEAK FORWARD SURGE CURRENT

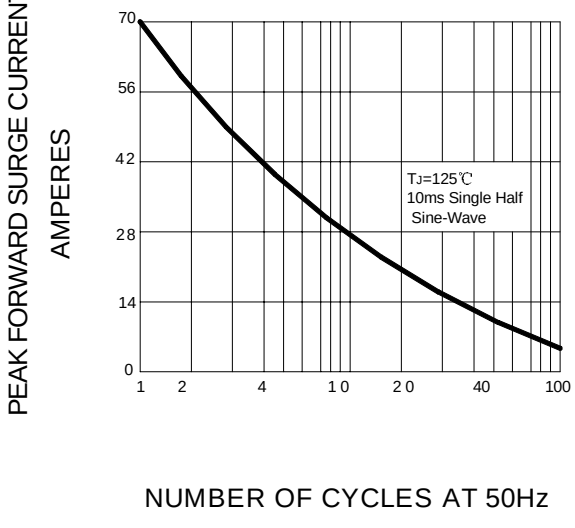


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

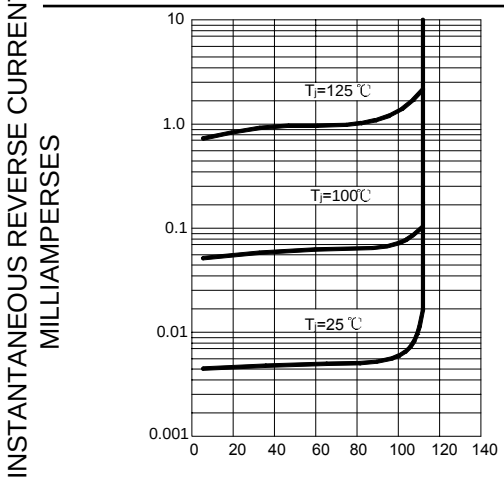
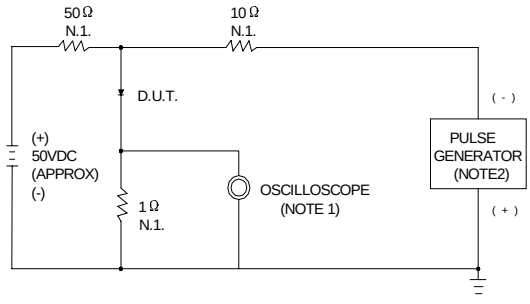
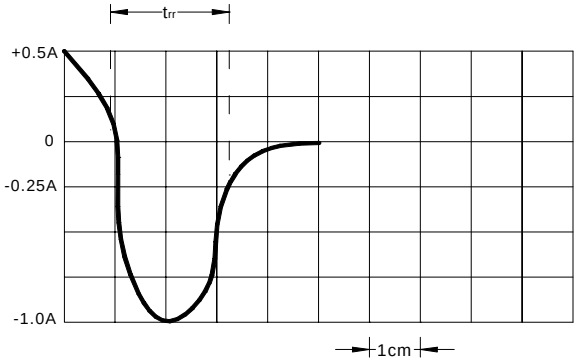


FIG.5 -- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





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

SET TIME BASE FOR 15 ns /cm