FMU-12S - FMU-16S

FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 200 - 600V
CURRENT: 5.0 A

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

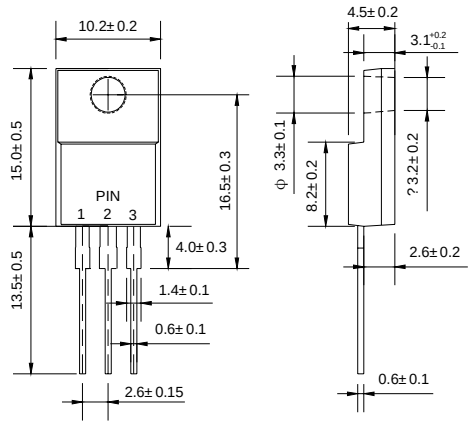
The plastic material carries U/L recognition 94V-0

Mechanical Data

- Case:JEDEC TO-220
- Polarity: As marked
- Weight:0.06ounce, 1.67 grams
- Mounting position: Any

RoHS COMPLIANT

TO-220



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	FMU-12S	FMU-14S	FMU-16S	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward rectified current @T_C=100℃	$I_{F(AV)}$	5.0			A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load	I_{FSM}	30			A
Maximum instantaneous forward voltage (IF=2.5A)	V_F	1.5			V
Maximum reverse current @T_J=25℃ at rated DC blocking voltage @T_J=100℃	I_R	50 500			μA
Maximum reverse recovery time (Note1)	t_{rr}	100			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 I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Thermal resistance junction to case.

Ratings AND Charactieristic Curves FMU-12S-FMU-16S

FIG.1 -- TYPICAL FORWARD CHARACTERISTIC

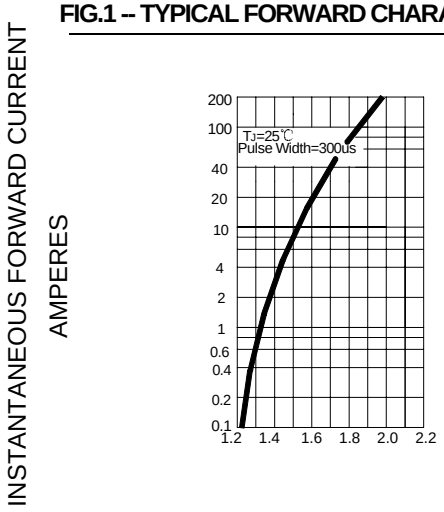


FIG.2-- FORWARD DERATING CURVE

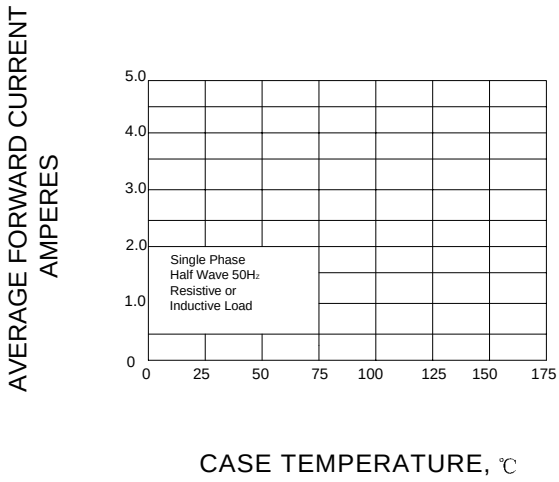


FIG.3-- PEAK FORWARD SURGE CURRENT

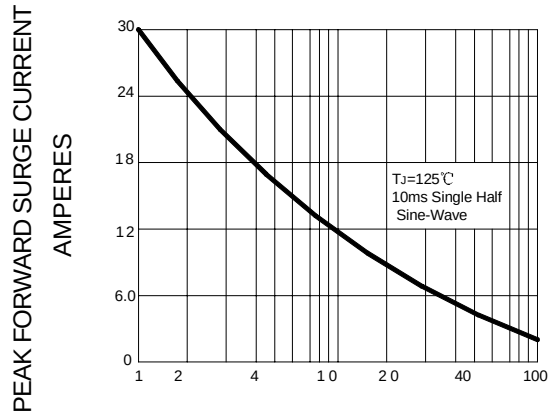


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

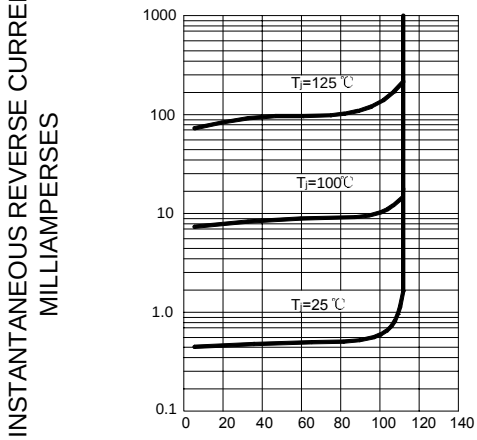
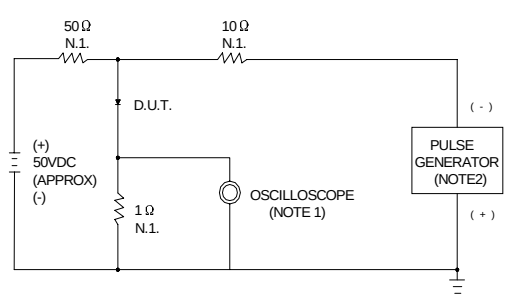
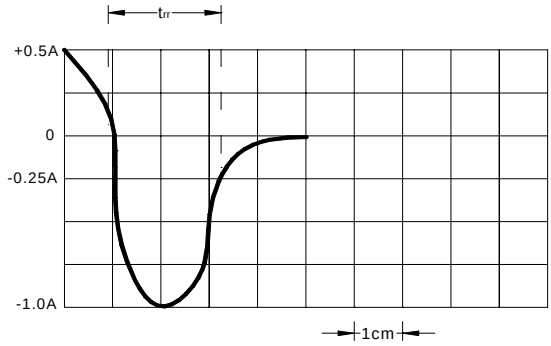


FIG.5 -- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





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

SET TIME BASE FOR 50ns /cm