

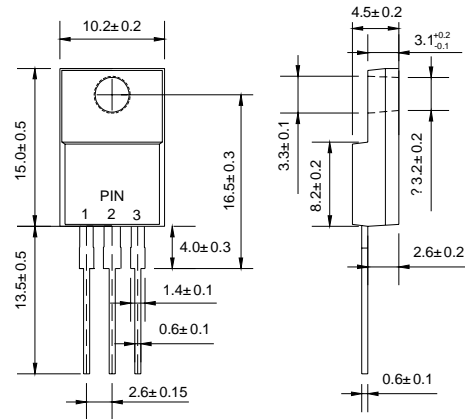
VOLTAGE RANGE: 200 - 600V
CURRENT: 5.0 A



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

TO-220AB



Dimensions in millimeters

Mechanical Data

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



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-14 S	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°C	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 (I _F =2.5A)	V _F	1.5			V
Maximum reverse current @ T _J =25 °C at rated DC blocking voltage @ T _J =100 °C	I _R	50 500			μ A
Maximum reverse recovery time (Note1)	t _{rr}	100			ns
Typical thermal resistance (Note2)	R _{θJC}	4.0			°C/W
Operating junction temperature range	T _J	- 55 ---- + 150			°C
Storage temperature range	T _{STG}	- 55 ---- + 150			°C

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

2. Thermal resistance junction to case.

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

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

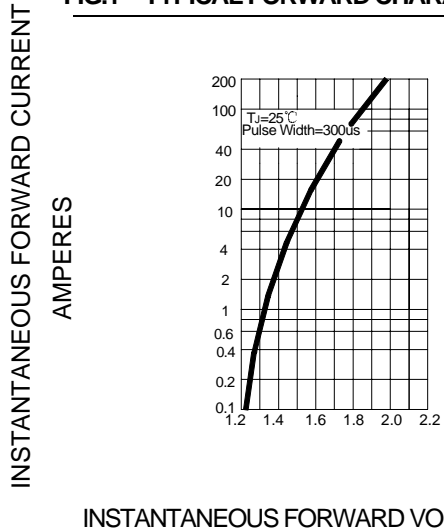


FIG.2– FORWARD DERATING CURVE

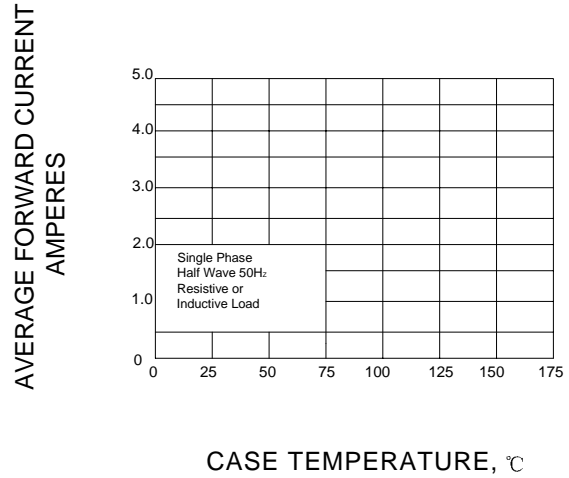


FIG.3– PEAK FORWARD SURGE CURRENT

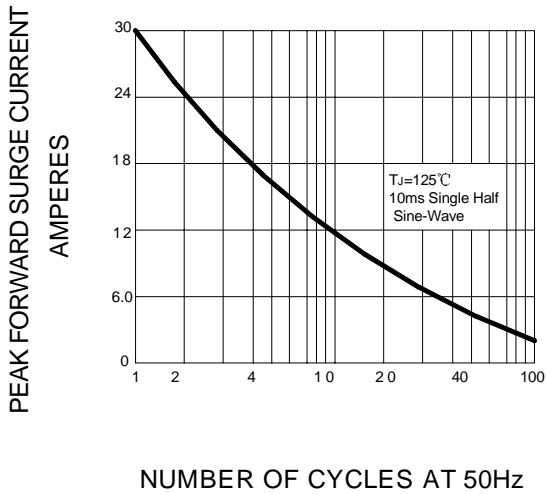


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

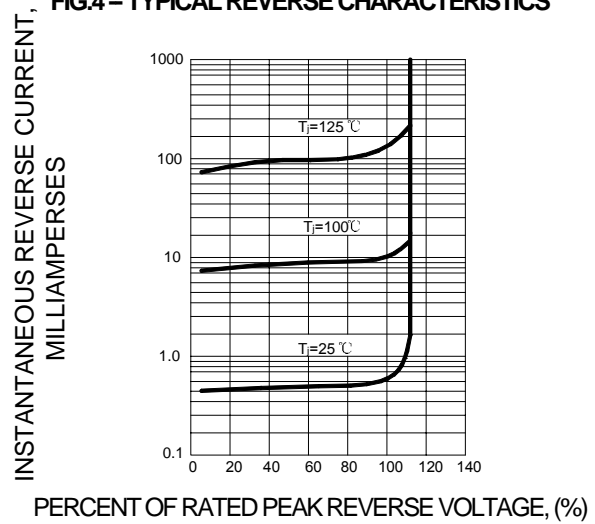
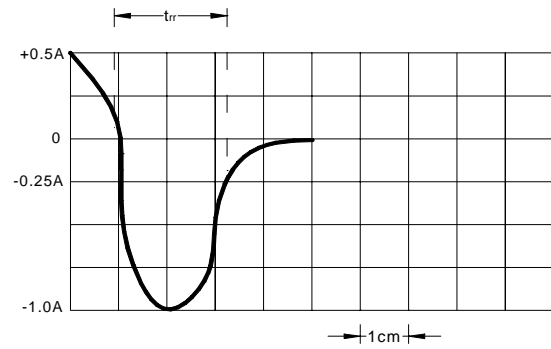
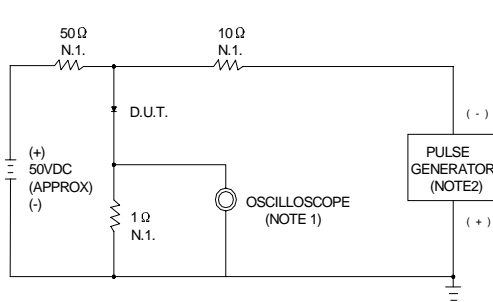


FIG.5 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

SET TIME BASE FOR 50ns/cm