

Voltage Range 50 to 600 V

Current 10.0 Ampere

Features

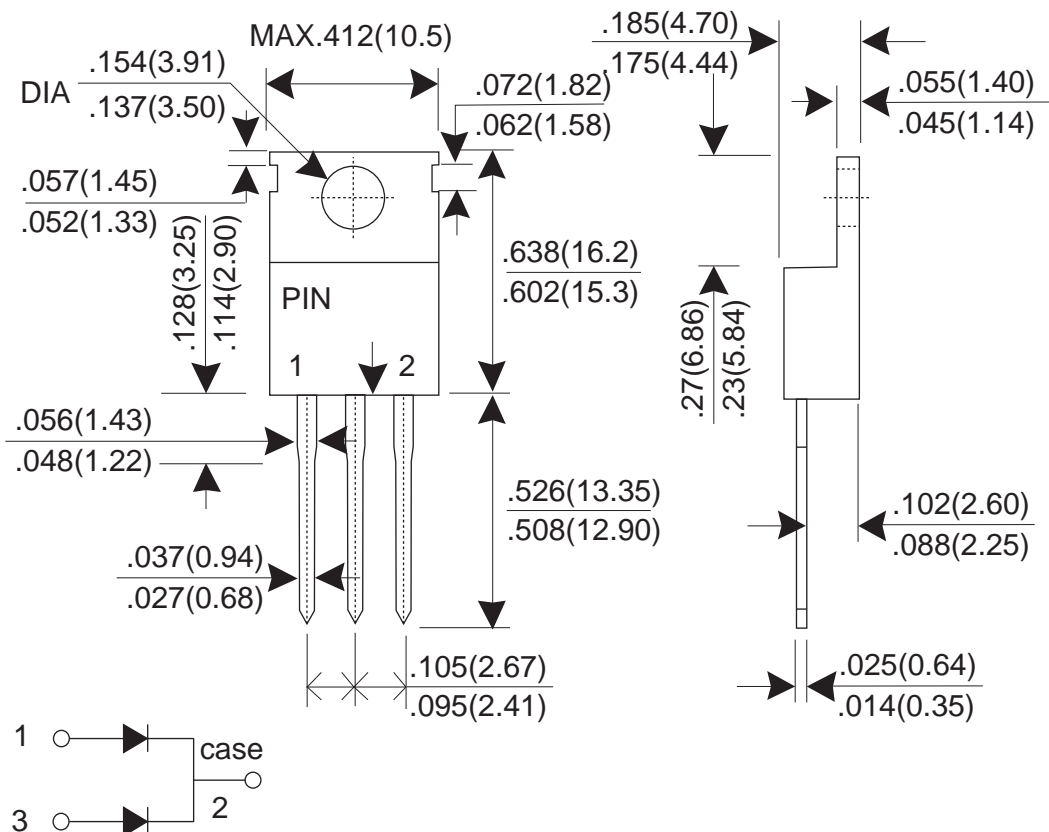
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Mechanical Data

- ★ Case: Molded plastic TO-220AB
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: Color band denotes cathode
- ★ Mounting position: Any
- ★ Weight: 2.07 grams

Dimensions in inches and (millimeters)

TO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

PARAMTER	SYMBOL	TSF 10C01C	TSF 10C02C	TSF 10C03C	TSF 10C04C	TSF 10C05C	TSF 10C06C	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current Tc=100°C	IF(AV)	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	100						A
Maximum Instantaneous Forward Voltage @ 5.0 A	VF	0.95			1.3		1.7	V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C	IR	10.0 250						uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35						nS
Typical junction Capacitance (Note 2)	CJ	65						pF
Typical Thermal Resistance (Note 3)	RθJC	2.2						°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to +150						°C

NOTES : (1) Reverse recovery test conditions $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to case.

RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

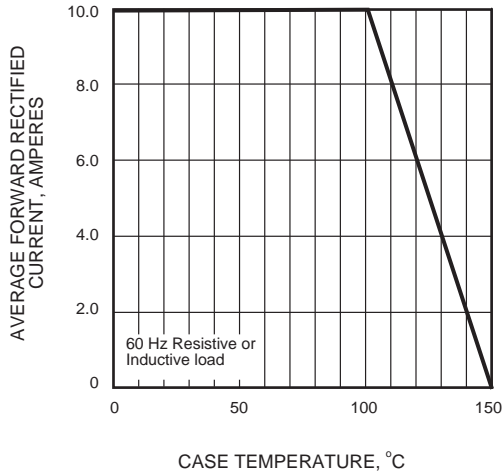


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

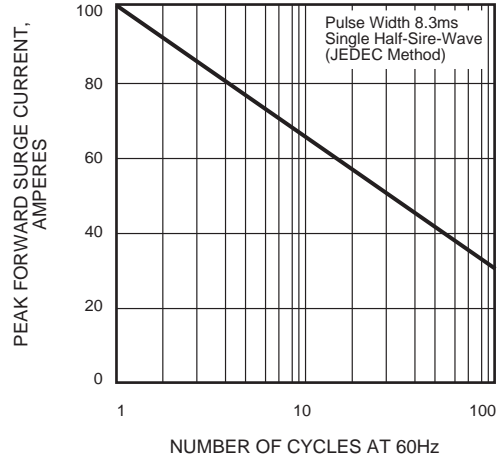


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

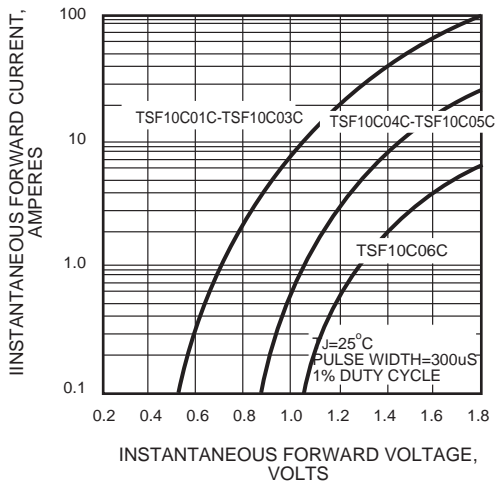


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

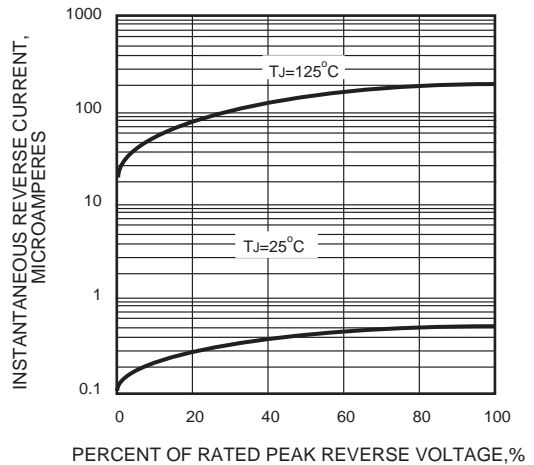


FIG.5 - TYPICAL JUNCTION CAPACITANCE

