

Voltage Range 50 to 600 V

Current 10.0 Ampere

Features

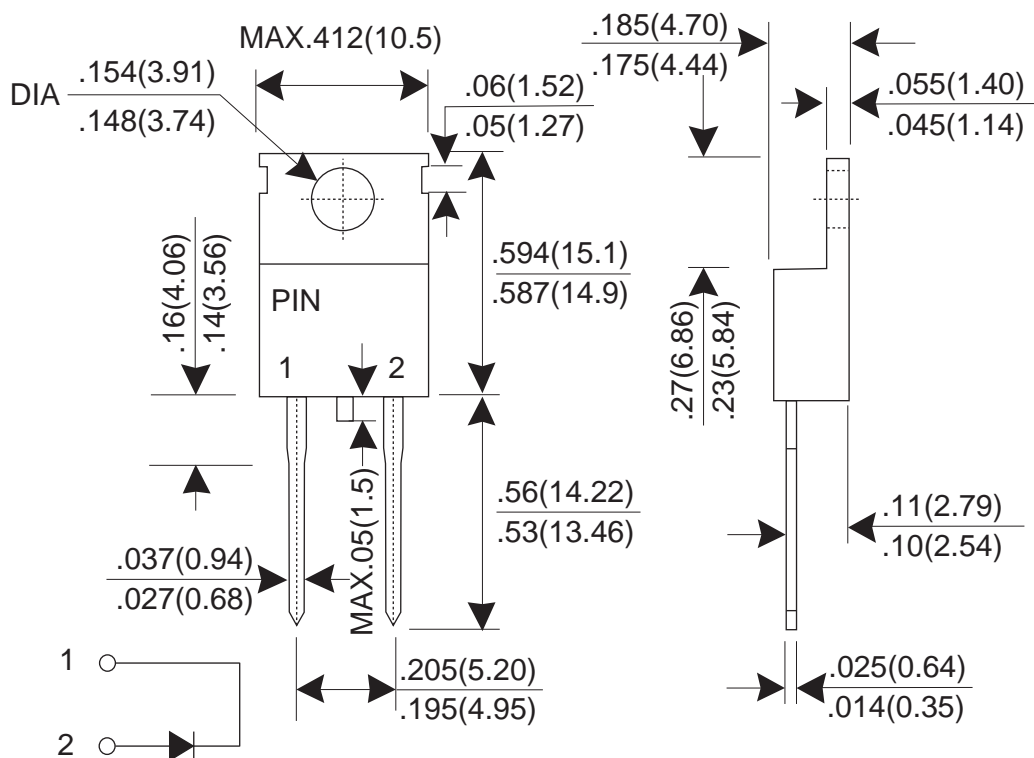
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Mechanical Data

- ★ Case: Molded plastic TO-220AC
- ★ 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-220AC



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%.

PATAMETER	SYMBOL	TSF10A01	TSF10A02	TSF10A03	TSF10A04	TSF10A05	TSF10A06	UNIT
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 Forward Rectified Current T _c =100°C	I _{F(AV)}	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200			175			A
Maximum Instantaneous Forward Voltage @ 10.0 A	V _F	0.95			1.3	1.7		V
Maximum DC Reverse Current @ T _J =25°C At Rated DC Blocking Voltage @ T _J =125°C	I _R	10.0 250						uA uA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35						nS
Typical junction Capacitance (Note 2)	C _J	65						pF
Typical Thermal Resistance (Note 3)	R _{θJC}	2.2						° CW
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-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

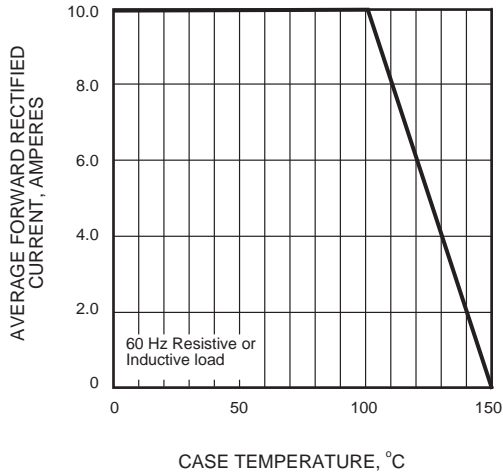


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

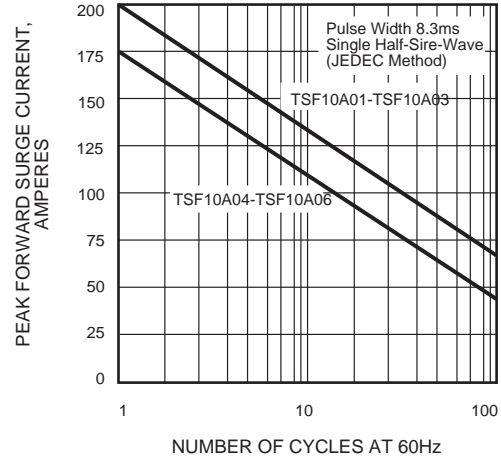


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

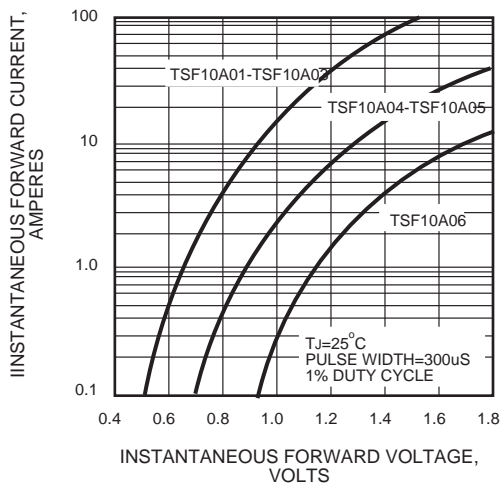


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

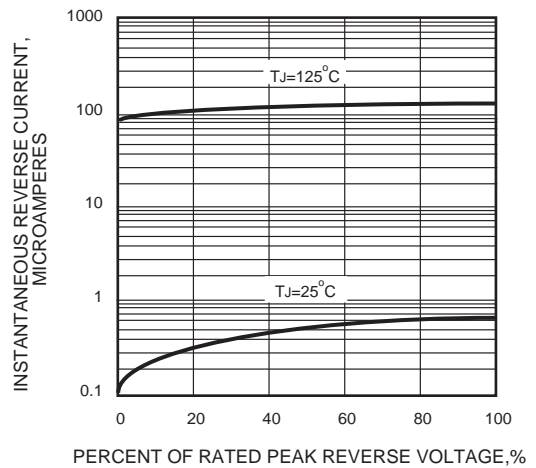


FIG.5 - TYPICAL JUNCTION CAPACITANCE

