

Voltage Range 50 to 600 V
Current 20.0 Ampere

Features

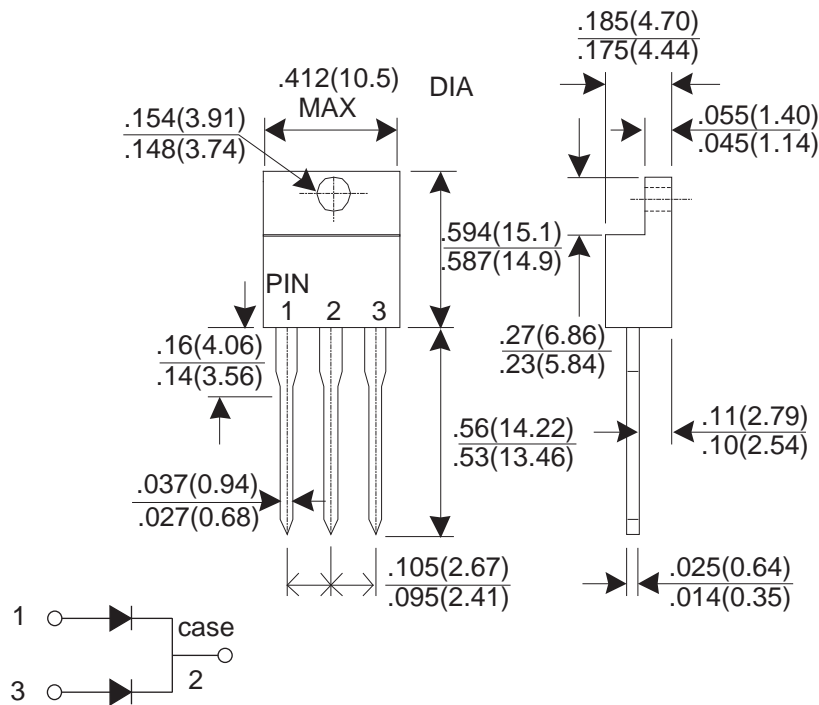
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

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: 2.24 gram

Dimensions in inches and (millimeters)

TO-220AB



Dimensions in inches and (millimeters)

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	TUF 20C01C	TUF 20C02C	TUF 20C03C	TUF 20C04C	TUF 20C05C	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current T _C =125°C	IF(AV)	20.0					A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	125					A
Maximum Instantaneous Forward Voltage @ 10.0 A	V _F	1.0			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}	50				75	nS
Typical junction Capacitance (Note 2)	C _J	120			70		pF
Typical Thermal Resistance (Note 3)	R _{θJA}	2.0					°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

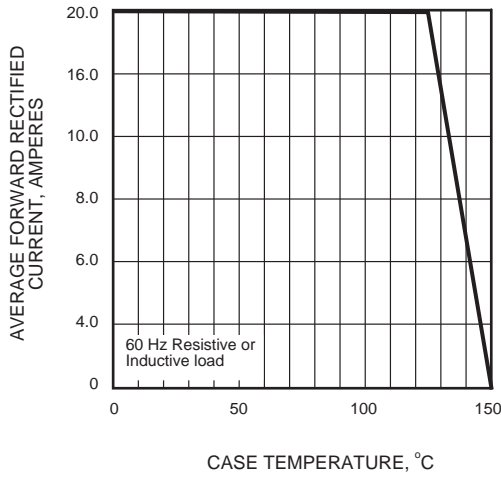


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

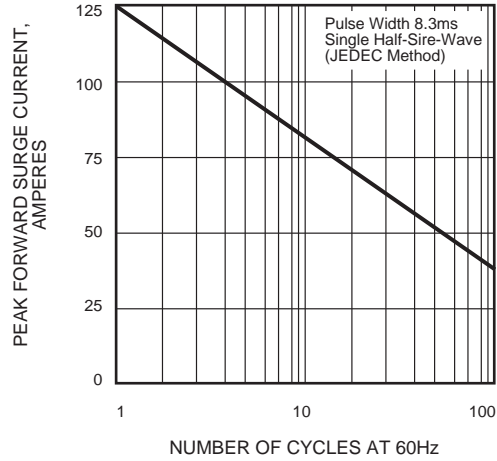


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

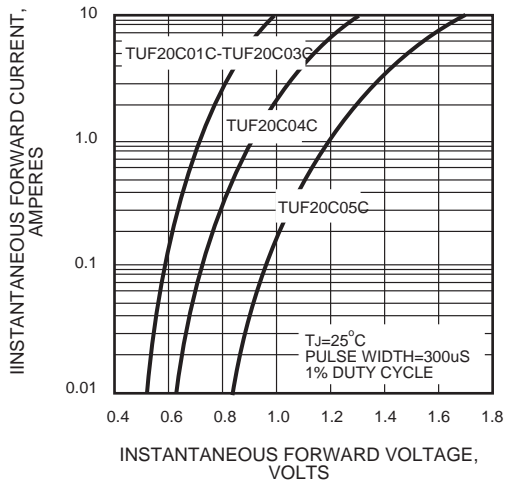


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

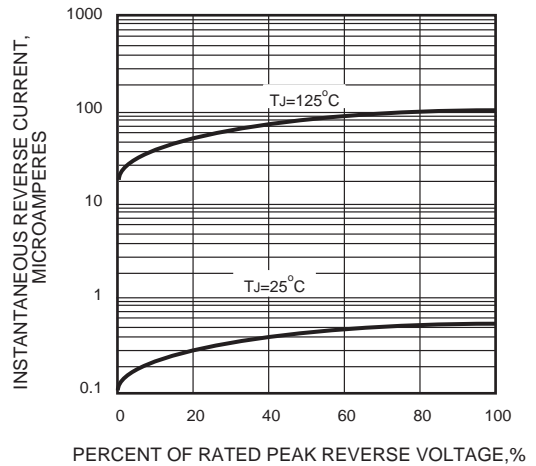


FIG.5 - TYPICAL JUNCTION CAPACITANCE

