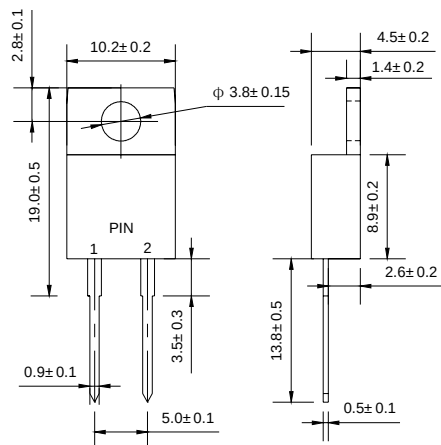




TO-220AC



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC TO-220AC, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.064 ounces, 1.96 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		10A05T	10A10T	10A20T	10A40T	10A60T	10A80T	10A100T	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_C=50^\circ\text{C}$	$I_{F(AV)}$	10							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	400							A
Maximum instantaneous forward voltage @ 10 A	V_F	1.0							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	10 100							μA
Typical junction capacitance (Note1)	C_J	120							pF
Typical thermal resistance (Note2)	$R_{\theta JC}$	10							$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ---- + 150							$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ---- + 150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

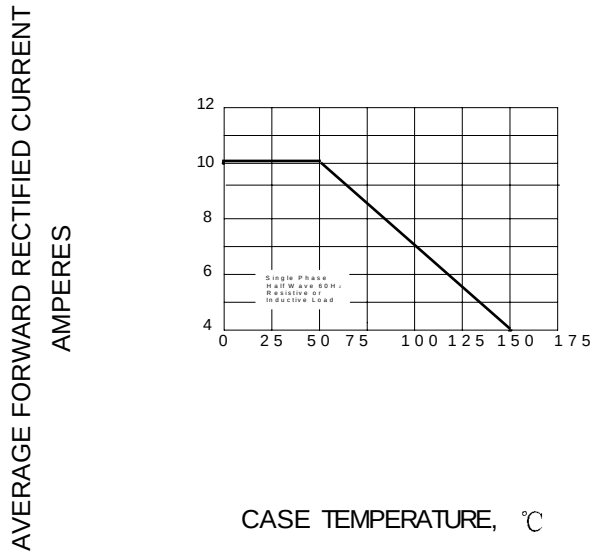


FIG.2 – TYPICAL FORWARD CHARACTERISTICS

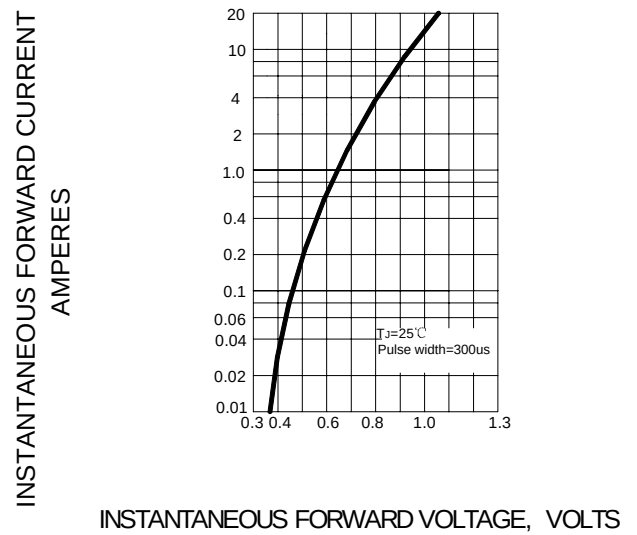


**FIG.3 – MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT**

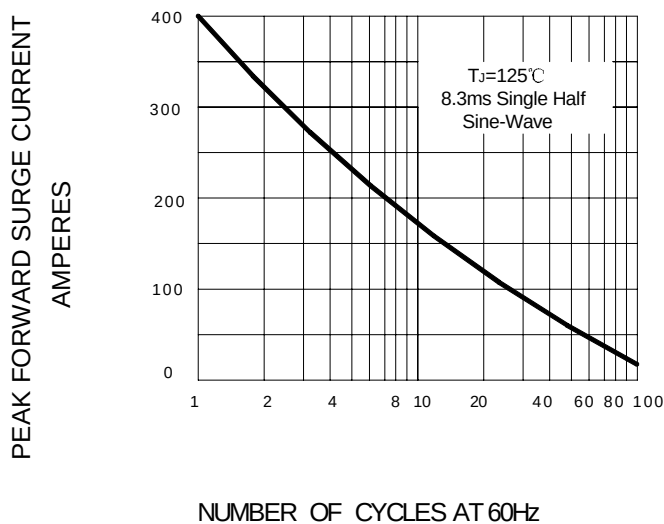


FIG.4 – TYPICAL JUNCTION CAPACITANCE

