

Pb Free Plating Product

TUR10A thru TUR10M



10.0 Ampere Surface Mount Glass Passivated Ultra Fast Recovery Rectifiers

FEATURE

- Glass passivated chip junction
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

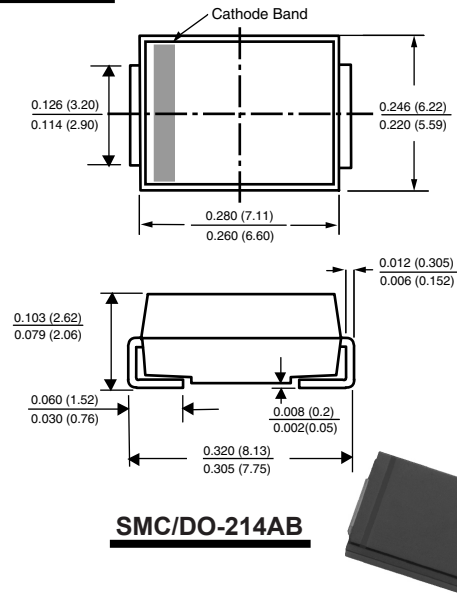
Case: SMC/DO-214AB Package
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode band
Mounting Position: Any
Weight: 0.22 gram approximately

APPLICATION

- LED SMPS/Industrial power supply
- HID ballast stabilizer/UPS
- Telecommunication SMPS/LED street lamp

OUTLINE

Unit: inch (millimeter)



Maximum Ratings and Electrical characteristics

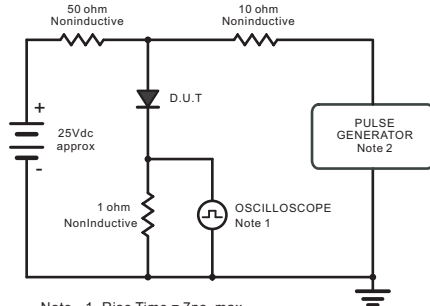
Ratings at 25 °C ambient temperature unless otherwise specified.

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

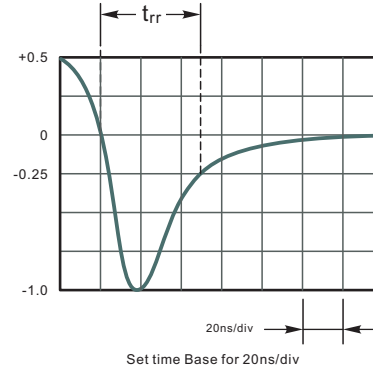
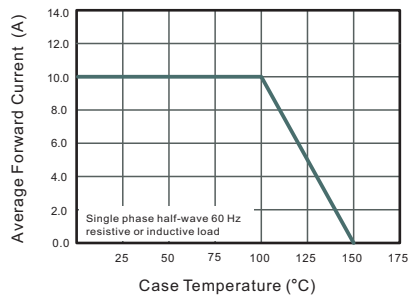
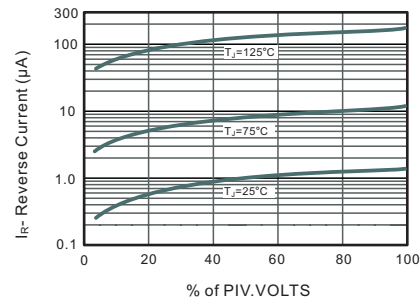
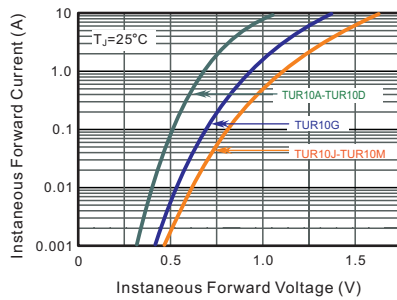
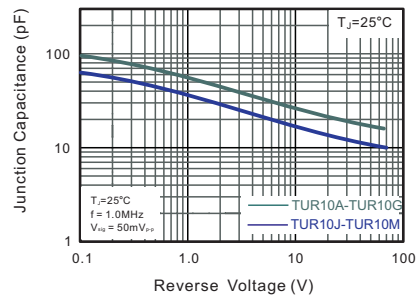
Parameter	Symbols	TUR10A	TUR10B	TUR10D	TUR10G	TUR10J	TUR10K	TUR10M	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _c = 100 °C	I _{F(AV)}	10.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	300							A
Maximum Instantaneous Forward Voltage @10.0A	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a = 125 °C	I _R	10 100							μA
Typical Junction Capacitance at V _R =4V, f=1MHz	C _j	65				55			pF
Maximum Reverse Recovery Time ⁽¹⁾	t _{rr}	50				75			ns
Typical Thermal Resistance ⁽²⁾	R _{θJA}	35							°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C

(1) Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

**Fig.2 Maximum Average Forward Current Rating****Fig.3 Typical Reverse Characteristics****Fig.4 Typical Forward Characteristics****Fig.5 Typical Junction Capacitance****Fig.6 Maximum Non-Repetitive Peak Forward Surge Current**