



SP1020~SP10150

ISOLATION SCHOTTKY BARRIER RECTIFIERS

Voltage Range 20 to 150 Volts

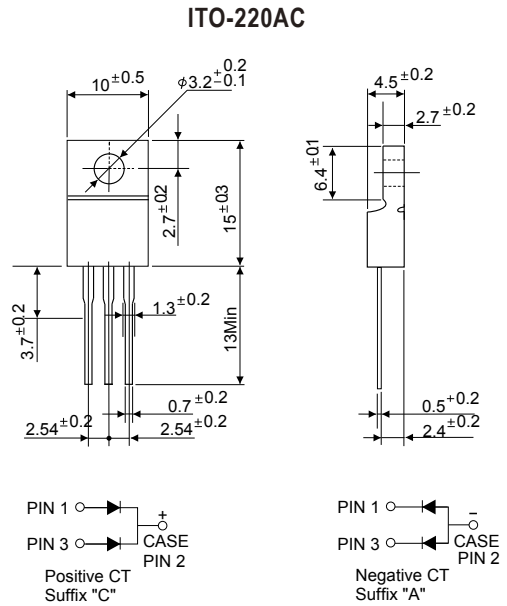
Current 10 Amperes

Features

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- * Exceeds environmental standards of MIL-S-19500/228
- * Low power loss, high efficiency.
- * Low forward voltage, high current capability
- * High surge capacity.
- * For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- * Pb free product are available: 99% Sn above can meet RoHS environment substance directive request

Mechanical Data

Case: ITO-220AC Molded plastic
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity: As marked.
 Standard packaging: Any
 Weight: 0.08 ounces, 2.24grams.



Dimensions in millimeters

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 current by 20%

PARAMETER	SYMBOL	SP1020	SP1030	SP1040	SP1045	SP1050	SP1060	SP1080	SP10100	SP10150	UNITS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	31.5	35	42	56	70	105	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	V	
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c = 100^\circ\text{C}$	I_{AV}	10									A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150									A	
Maximum Forward Voltage at 10A	V_F	0.55			0.75		0.85		0.92		V	
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	I_R					0.5		50				mA
Typical Thermal Resistance	R_{QJA}	0									$^\circ\text{C}/\text{W}$	
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 50 to + 125									$^\circ\text{C}$	

NOTE:
 1. Both Bonding and Chip structure are available.



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Rating and Characteristic Curves

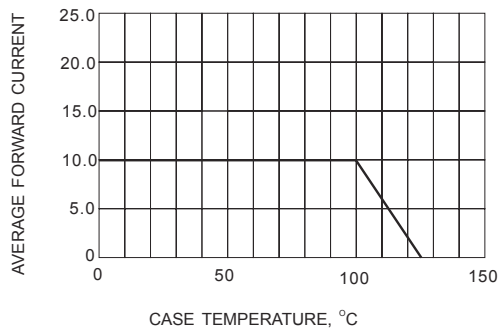


Fig.1- FORWARD CURRENT DERATING CURVE

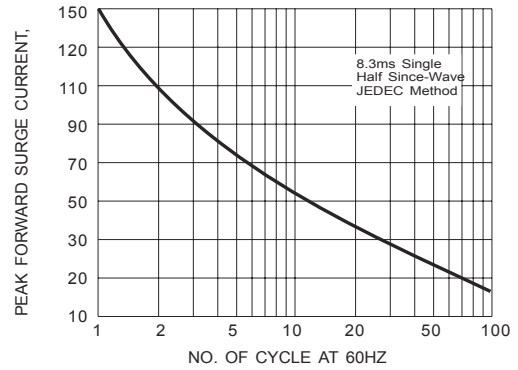


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

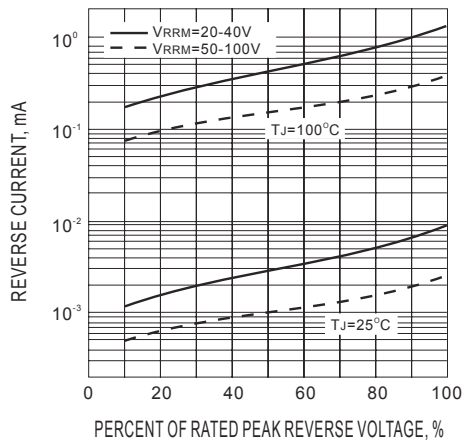


Fig.3- TYPICAL REVERSE CHARACTERISTIC

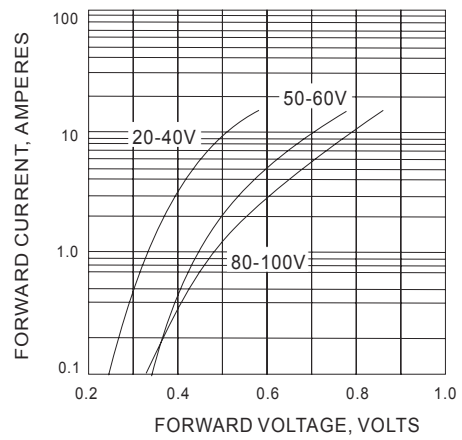


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC