

RoHS Compliant Product  
 A suffix of "-C" specifies halogen free

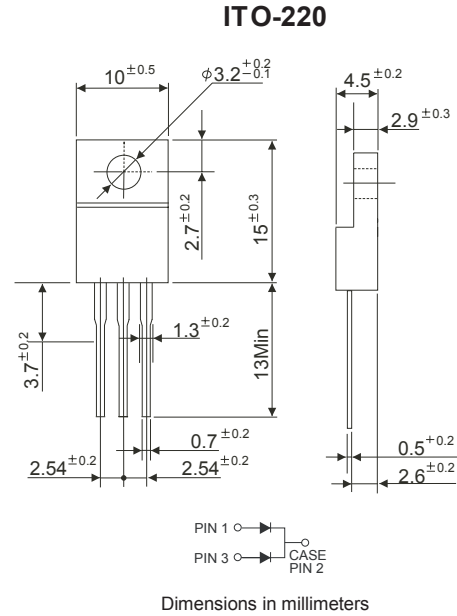


**FEATURES**

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

**MECHANICAL DATA**

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.98 grams (approximate)



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified.  
 Single phase half wave, 60Hz, resistive or inductive load.  
 For capacitive load, de-rate current by 20%.

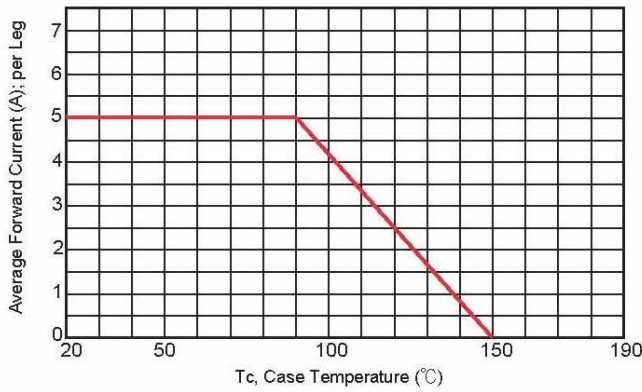
TYPE NUMBER	SYMBOL	SP10100	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RSM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	$I_F$	5	A
Per Leg		10	
Per Device			
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	130	A
Maximum Instantaneous Forward Voltage	$V_F$	0.82	V
$I_F = 5 A, T_A = 25^\circ C, \text{ per leg}$		0.70	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.05	mA
$T_A = 25^\circ C$		10	
$T_A = 100^\circ C$			
Typical Junction Capacitance (Note 1)	$C_J$	350	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	4.0	°C /W
	$dv / dt$	10000	V / $\mu s$
Operating Temperature Range $T_J$	$T_J$	-50 ~ +150	°C
Storage Temperature Range $T_{STG}$	$T_{STG}$	-65 ~ +175	°C

NOTES:

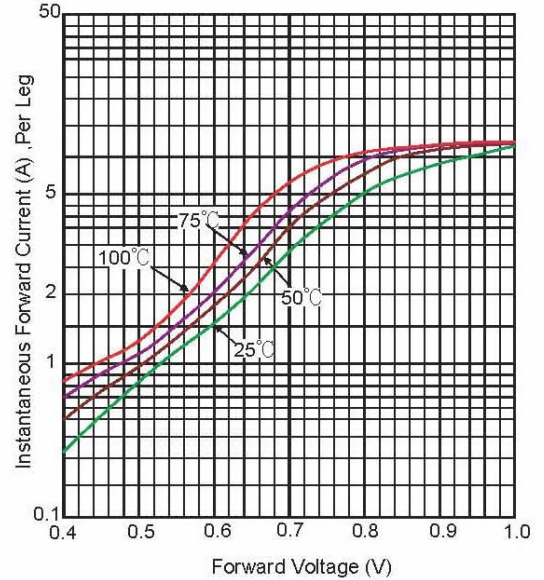
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.

**RATINGS AND CHARACTERISTIC CURVES (SP10100)**

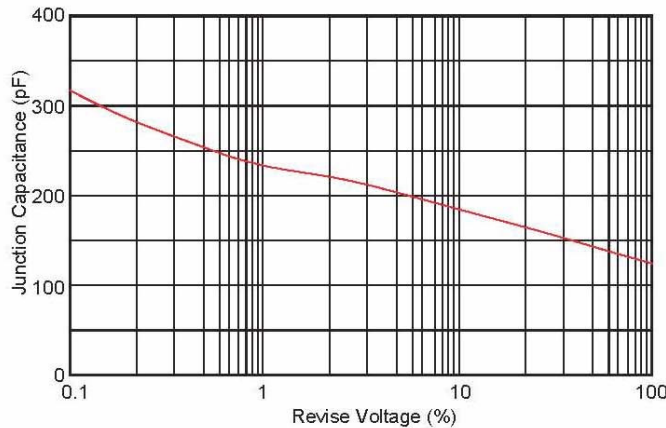
Typical Forward Current Derating Curve



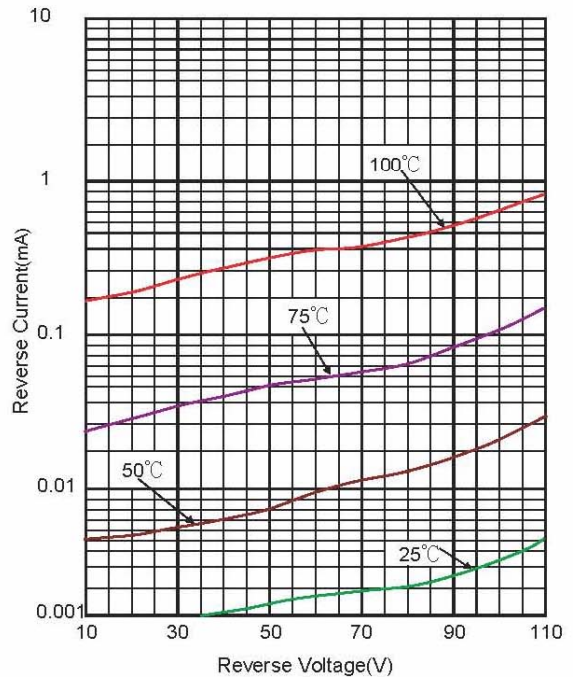
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

