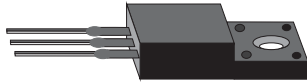


RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free



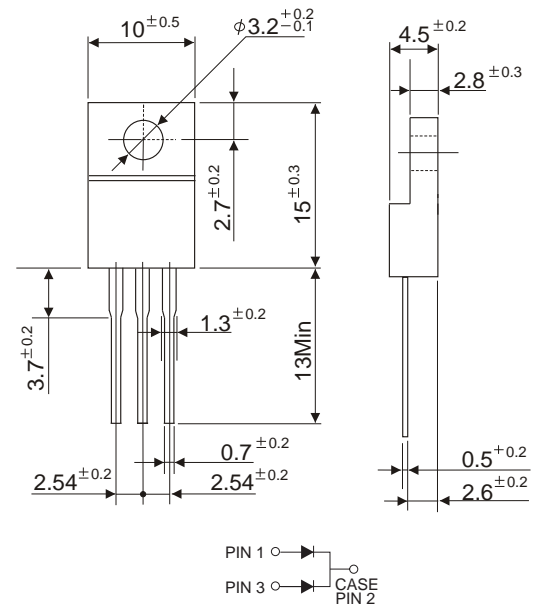
ITO-220

## FEATURES

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

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams



Dimensions in millimeters

## 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, derate current by 20%.

TYPE NUMBER	SP1620	SP1630	SP1640	SP1660	SP1680	SP16100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	60	80	100	V
Working Peak Reverse Voltage	20	30	40	60	80	100	V
Maximum DC Blocking Voltage	20	30	40	60	80	100	V
Maximum Average Forward Rectified Current See Fig. 1	16						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150						A
Maximum Instantaneous Forward Voltage at 8.0A	0.45	0.52	0.65	0.83			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	0.1						mA
	6						mA
Typical Junction Capacitance (Note 1)	700		460	280			pF
Typical Thermal Resistance R <sub>θJC</sub> (Note 2)	3.5						°C/W
Operating Temperature Range T <sub>J</sub>	-50 ~ +150						°C
Storage Temperature Range T <sub>STG</sub>	-65 ~ +175						°C

### NOTES

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (SP1620 THRU SP16100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

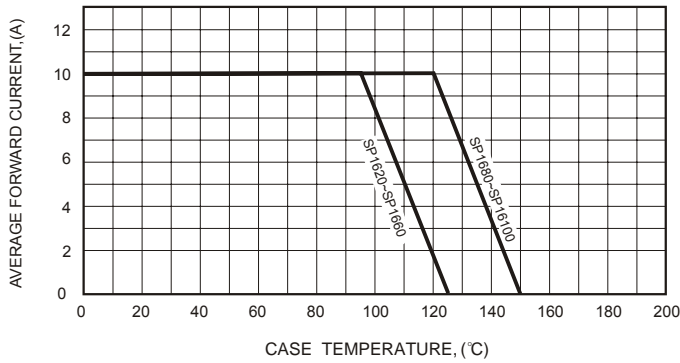


FIG.2-TYPICAL FORWARD CHARACTERISTICS

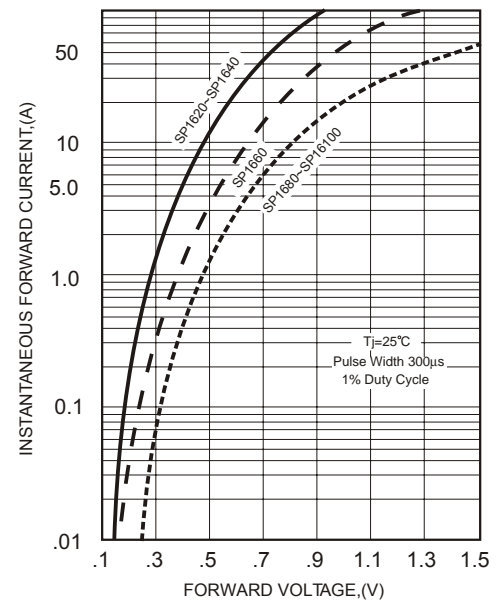


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

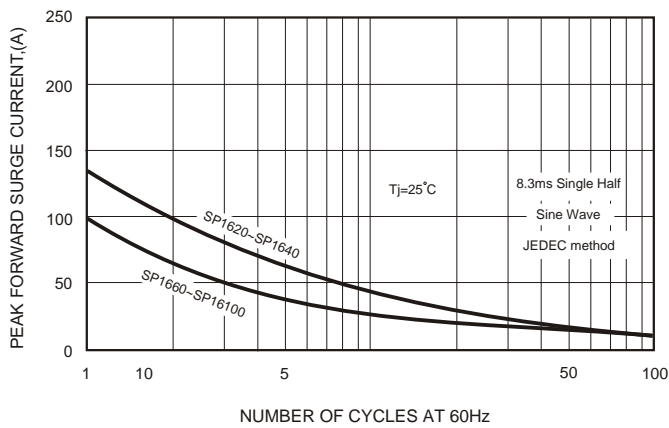


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

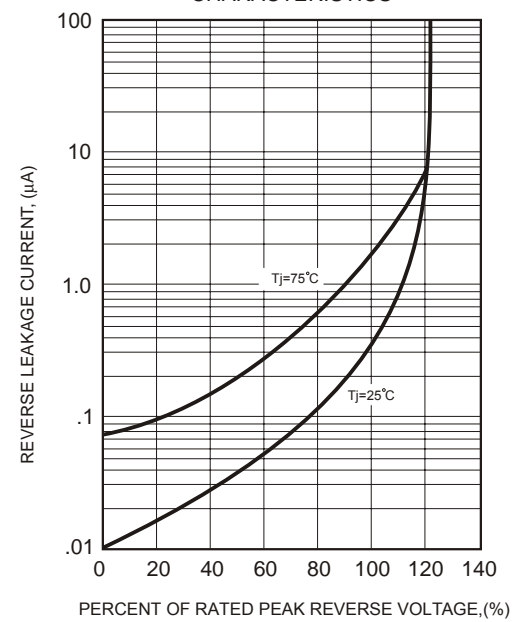


FIG.4-TYPICAL JUNCTION CAPACITANCE

