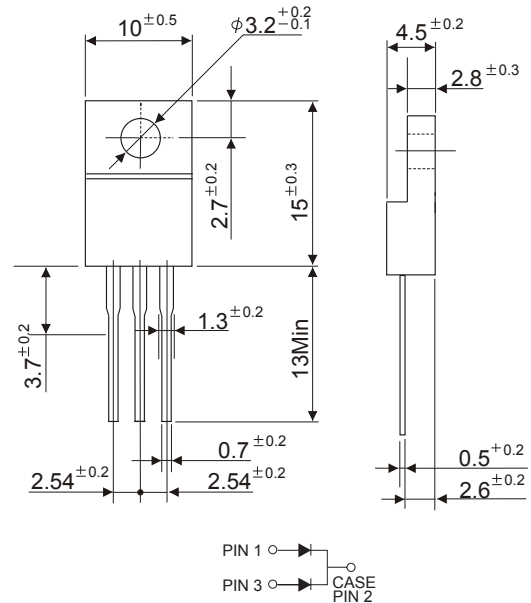


RoHS Compliant Product

A suffix of "-C" specifies halogen-free



**ITO-220**



Dimensions in millimeters

**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

**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	SP820S	SP840S	SP860S	SP880S	SP8100S	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	60	80	100	V
Maximum RMS Voltage	14	32	48	64	80	V
Maximum DC Blocking Voltage	20	40	60	80	100	V
Maximum Average Forward Rectified Current						
See Fig. 1	8.0					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	0.55	0.70	0.80			V
Maximum DC Reverse Current Ta=25°C	5.0					mA
at Rated DC Blocking Voltage Ta=100°C	50					mA
Typical Junction Capacitance (Note 1)	700			460		pF
Typical Thermal Resistance RθJC (Note 2)	3.5					°C/W
Operating Temperature Range Tj	-50 ~ +125					°C
Storage Temperature Range Tstg	-65 ~ +150					°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 (SP820S THRU SP8100S)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

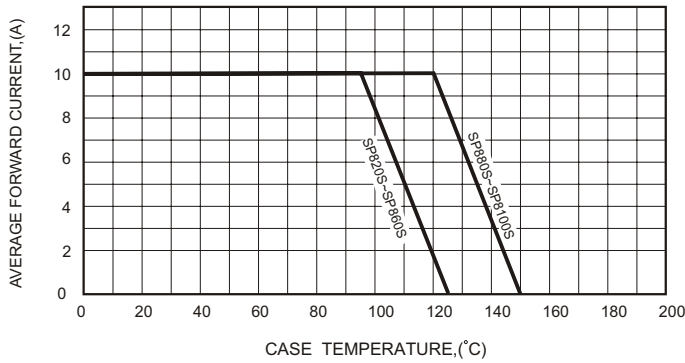


FIG.2-TYPICAL FORWARD CHARACTERISTICS

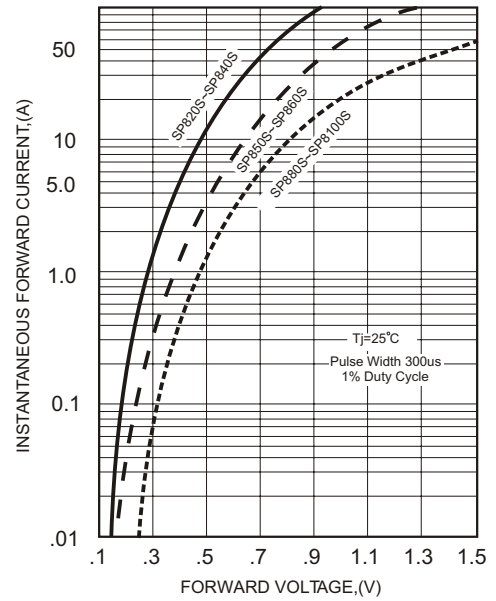


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

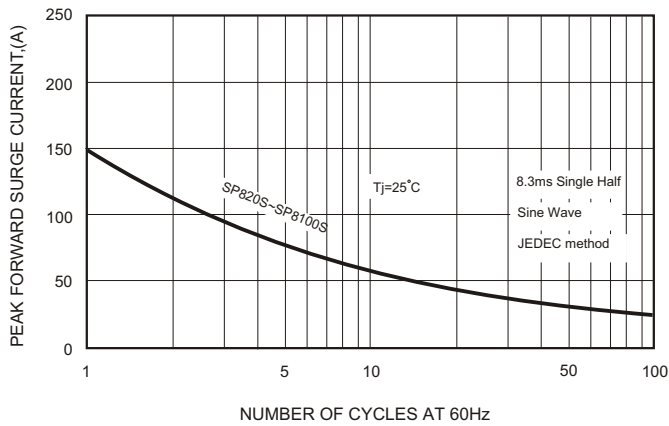


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

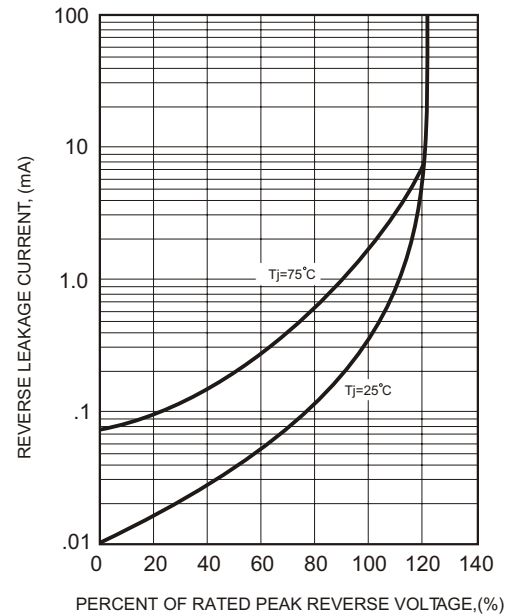


FIG.4-TYPICAL JUNCTION CAPACITANCE

