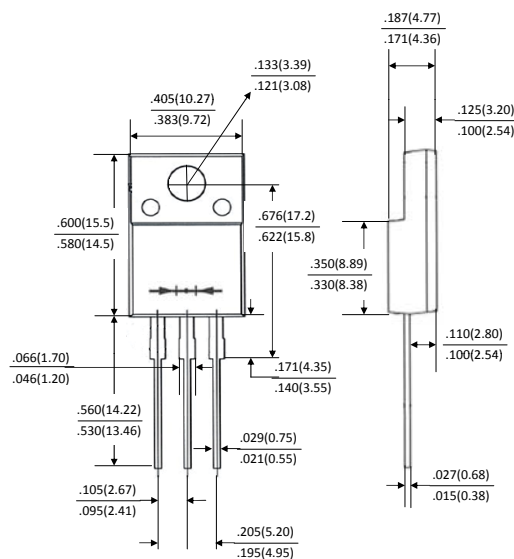




SP1620C thru SP16200C



Schottky Barrier Rectifiers



ITO-220AB

Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
SP16xxC	General
SP16xxC-H	Halogen Free
SP16xxC-Q	Automotive

PRIMARY CHARACTERISTICS

I_F	16A
V_{RRM}	20~200V
I_{FSM}	125A
V_F	0.55V, 0.70V, 0.85V, 0.92V
T_J max	125°C , 150°C

Features

- Guard Ring for over voltage Protection
- High forward surge capability
- High frequency operation
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Mechanical Data

- Case: ITO-220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over copper Leadframe. Solderable per MIL-STD-202
- Weight: 1.689 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SP16 20C	SP16 30C	SP16 40C	SP16 50C	SP16 60C	SP16 80C	SP16 100C	SP16 150C	SP16 200C	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current (Total) (Per Leg)	I _F	16 8									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	125.0									A
Maximum Instantaneous IF=8A @ 25°C Forward Voltage IF=8A @ 100°C	V _F	0.55 0.52			0.70 0.60		0.85 0.70		0.92 0.80		V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	0.5 30					0.2 10			mA	
Typical Junction Capacitance(NOTE1)	C _j	450			350		250		200	150	pF
Typical Thermal Resistance	R _{θJC}	3									°C/W
Operating Temperature Range	T _J	-55 to +125					-55 to +150				°C
Storage Temperature Range	T _{STG}	-55 to +150									°C

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



Schottky Barrier Rectifiers

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

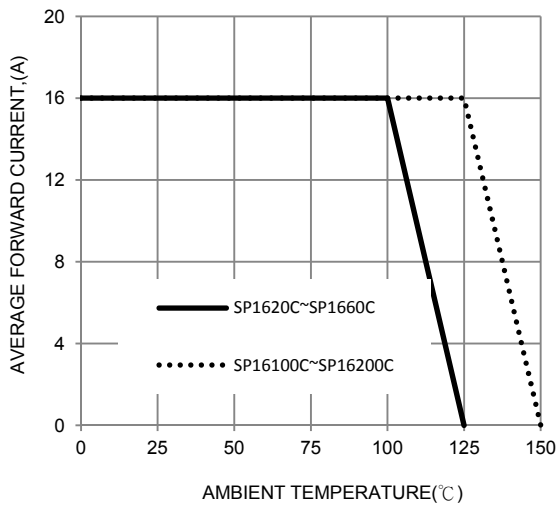


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

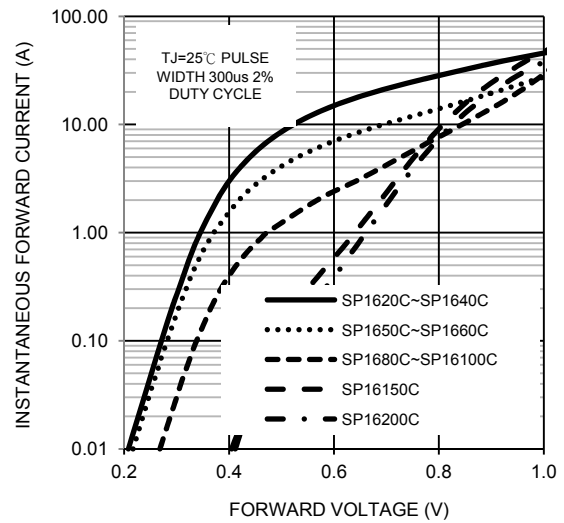


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

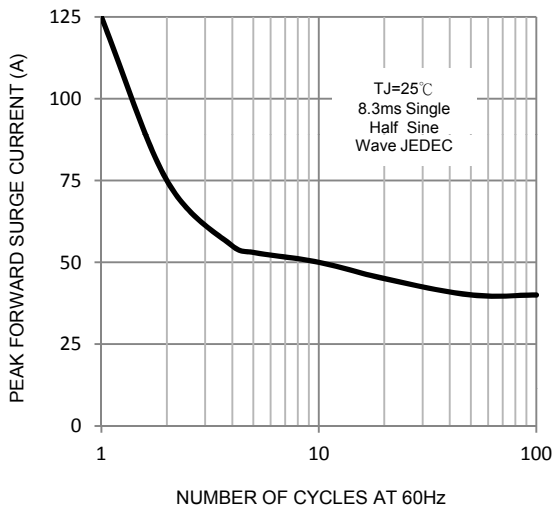


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

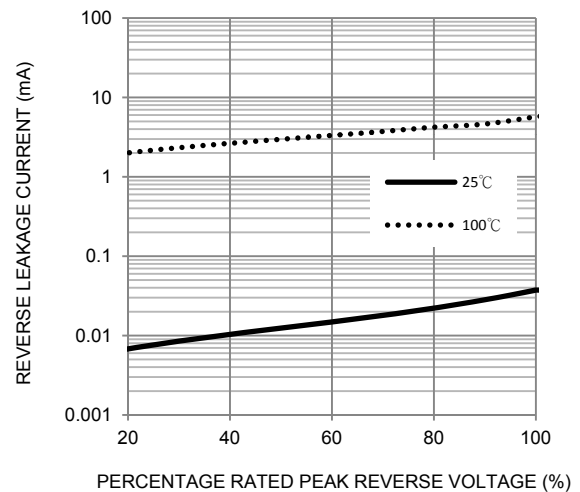


FIG. 5-TYPICAL JUNCTION CAPACITANCE

