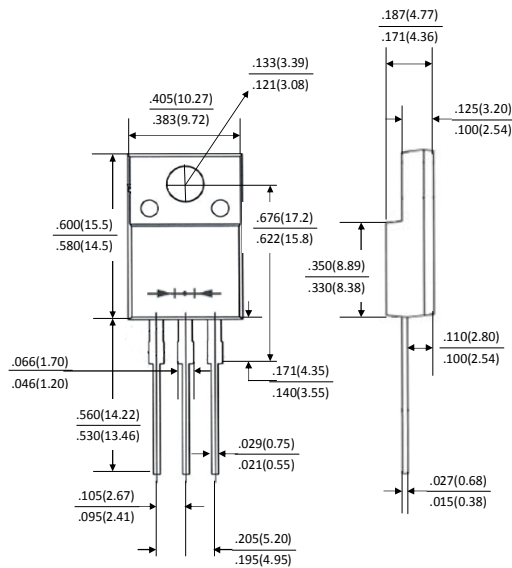




SP3020C thru SP30200C



Schottky Barrier Rectifiers



ITO-220AB

Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
SP30xxC	General
SP30xxC-H	Halogen Free
SP30xxC-Q	Automotive

PRIMARY CHARACTERISTICS

I_F	30A
V_{RRM}	20~200V
I_{FSM}	200A
V_F	0.60V, 0.75V, 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	SP30 20C	SP30 40C	SP30 45C	SP30 50C	SP30 60C	SP30 80C	SP30 100C	SP30 150C	SP30 200C	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	45	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	31.5	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	30 15									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	200.0									A
Maximum Instantaneous IF=15A @ 25°C Forward Voltage IF=15A @ 100°C	V _F	0.60 0.55			0.75 0.65		0.85 0.75		0.92 0.82		V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	1 50					0.5 20				mA
Typical Junction Capacitance(NOTE1)	C _j	800			600		450		350		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



FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

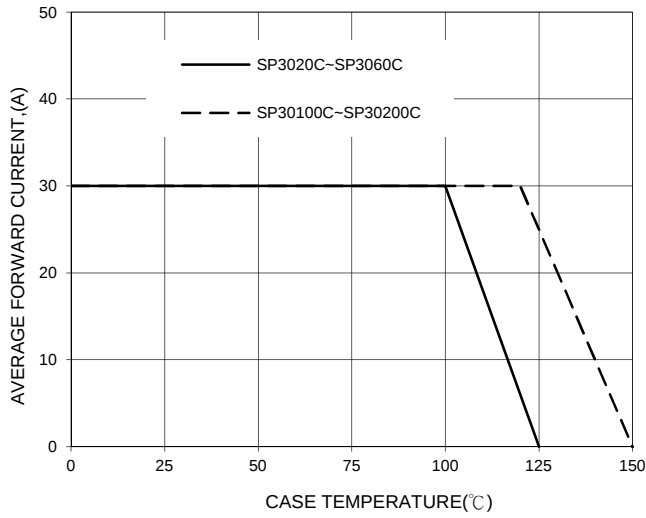


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

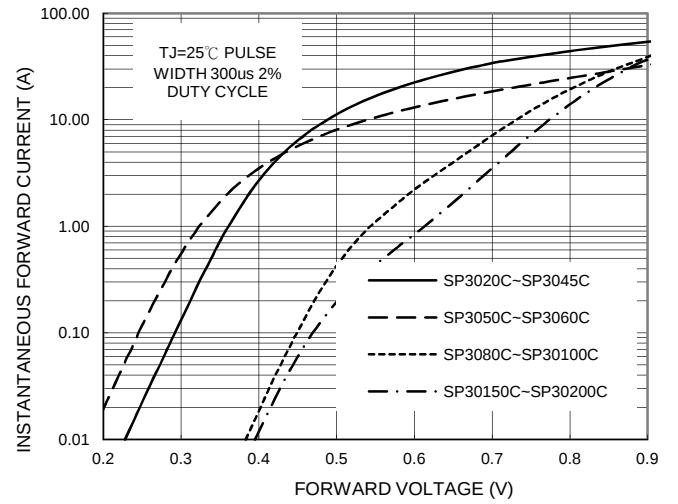


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

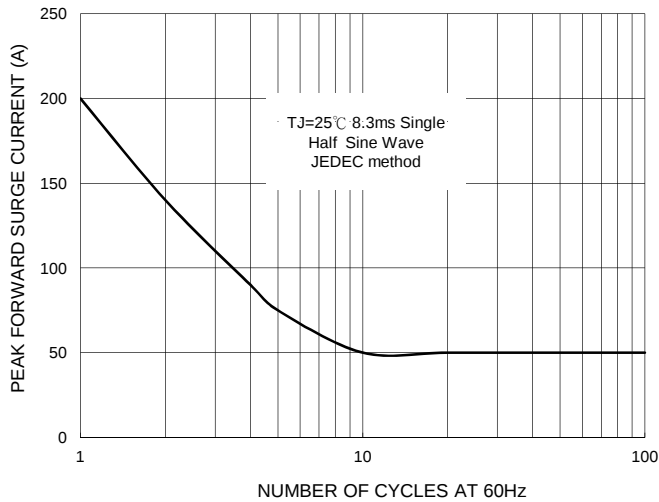


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

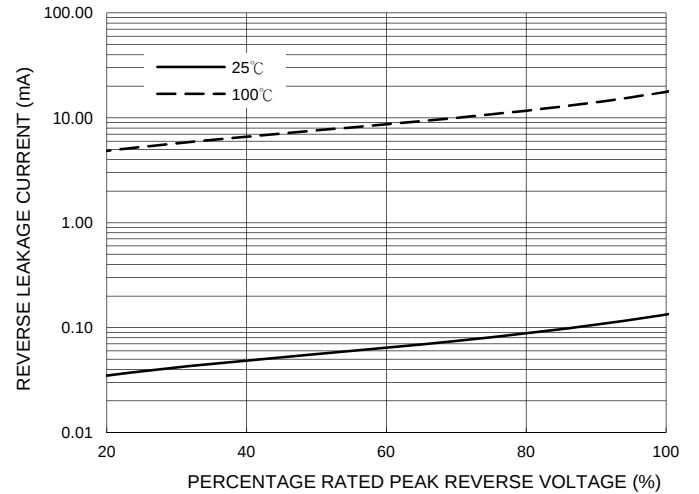


FIG. 5-TYPICAL JUNCTION CAPACITANCE

