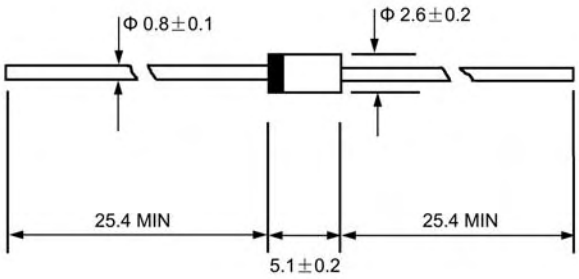
SR120-SR110

Schottky Barrier Rectifiers

VOLTAGE RANGE: 20 --- 100 V
CURRENT: 1.0A

DO - 41



Dimensions in millimeters

Features

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC DO--41,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces,0.34 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		SR120	SR130	SR140	SR150	SR160	SR180	SR110	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forw ard rectified current 9.5mm lead length, (see fig.1)	$I_{F(AV)}$	1.0							A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	40.0							A
Maximum instantaneous forw ard voltage @ 1.0A(Note 1)	V_F	0.55			0.7		0.85		V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	0.5 10.0							mA
Typical junction capacitance (Note2)	C_J	110							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50							℃/W
Operating junction temperature range	T_J	- 55 ---- + 125			- 55 ---- + 150				℃
Storage temperature range	T_{STG}	- 55 ---- +150							℃

NOTE: 1. Pulse test : 300μs pulse width,1% duty cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal resistance junction to ambient

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Ratings AND Charactieristic Curves

FIG.1 -- FORWARD DERATING CURVE

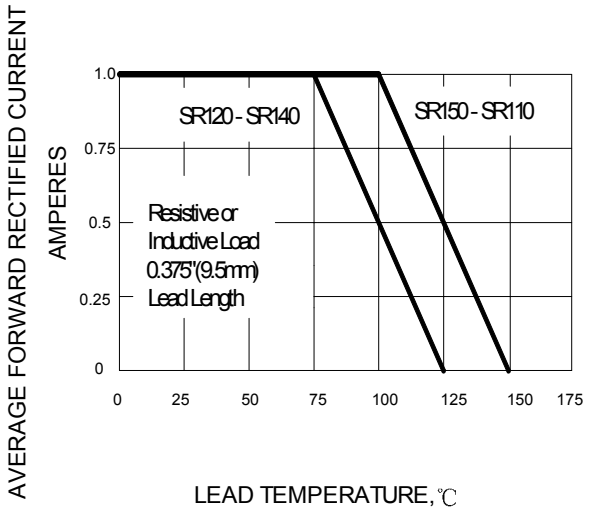

FIG.2 -- PEAK FORWARD SURGE CURRENT

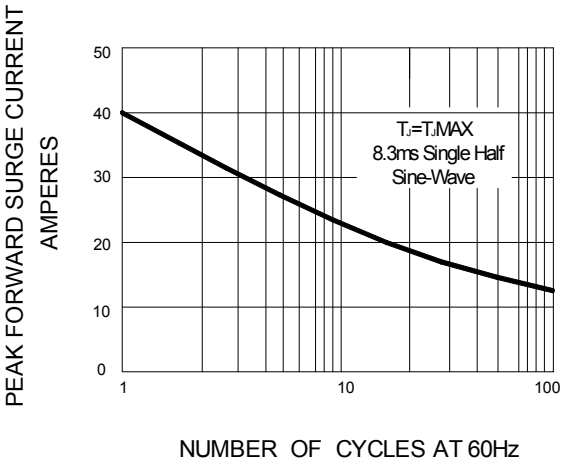

FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

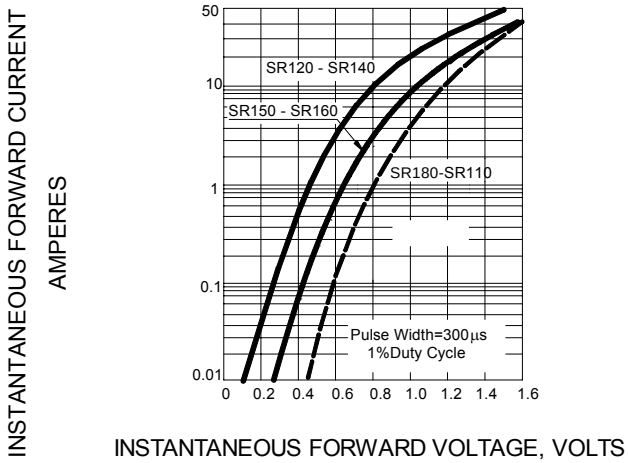

FIG.4 -- TYPICAL JUNCTION CAPACITANCE