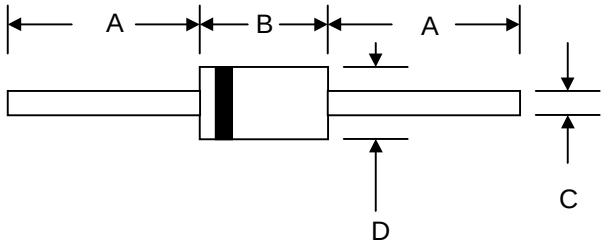
1S20-1S100

1.0A Axial Leaded Schottky Barrier Rectifier

Features

- Low switcing noise
- Low forward voltage drop
- High current capability
- High switching capability
- High surge capability
- High reliability



Mechanical Data

- Case:JEDEC R-1,molded plastic
- Epoxy: device has UL flammability classification 94V-0
- Lead: MIL-STD 202E method 208c guaranteed
- Mounting position: Any
- Weight: 0.007 ounces,0.20 grams

R-1		
Dim	**Min**	**Max**
A	20.0	—
B	2.00	3.50
C	0.53	0.64
D	2.20	2.60
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load derate current by 20%.

		1S20	1S30	1S40	1S50	1S60	1S80	1S100	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 forward rectified current 9.5mm lead length, (see fig.1)	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	20.0							A
Maximum instantaneous forward voltage @ 1.0A	V_F	0.55			0.70		0.85		V
Maximum reverse current @T_A=25℃	I_R	1.0							mA
at rated DC blocking voltage @T_A=100℃		10.0							
Typical junction capacitance (Note1)	C_J	110							pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50							℃/W
Operating junction temperature range	T_J	- 55 --- + 150							℃
Storage temperature range	T_{STG}	- 55 --- + 150							℃

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2.Thermalresistance junction to ambient

FIG.1 – FORWARD CURRENT DERATING CURVE

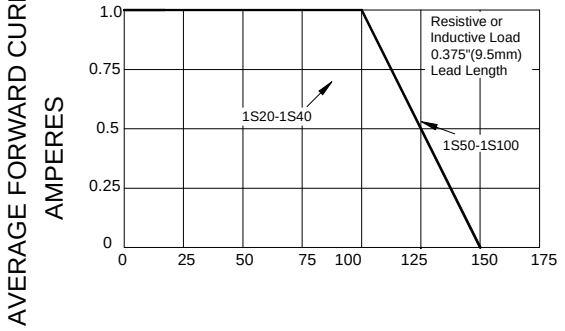


FIG.2 –MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

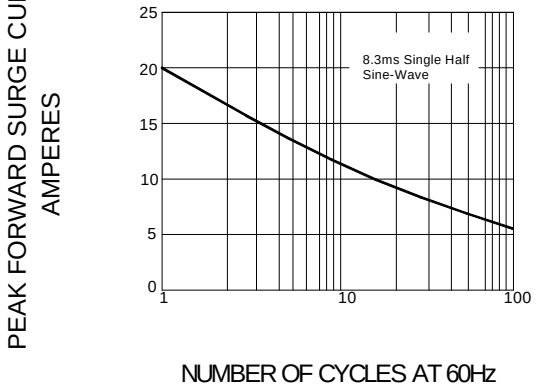


FIG.3 –TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

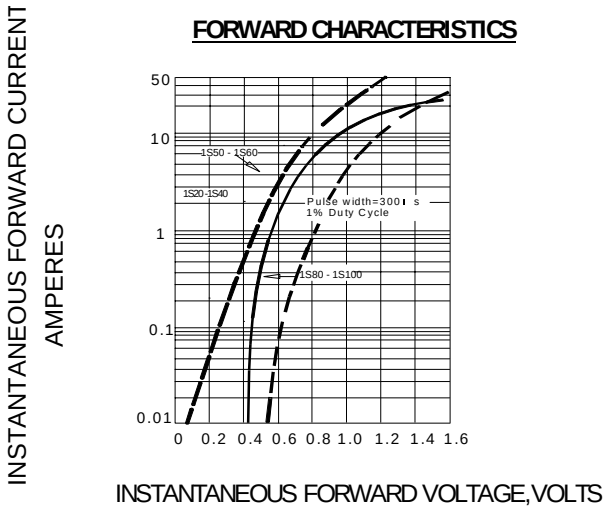


FIG.4–TYPICAL REVERSE CHARACTERISTICS

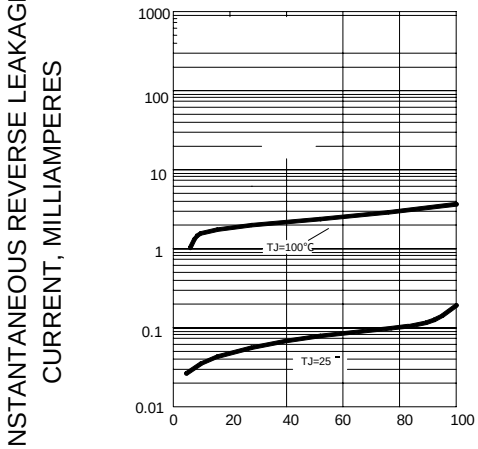


FIG.5–TYPICAL JUNCTION CAPACITANCE

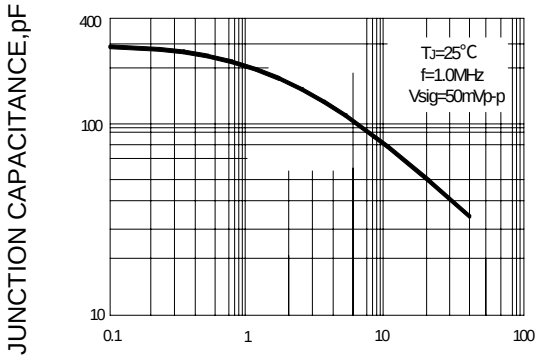


FIG.6–TYPICAL TRANSIENT THERMAL IMPEDANCE