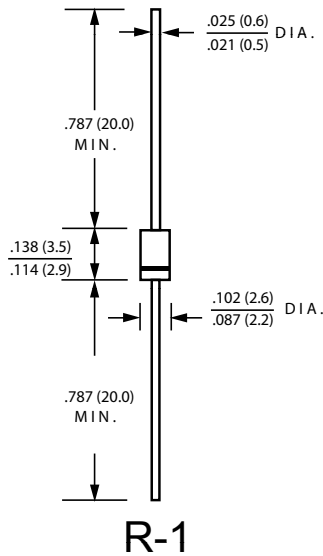




1S20 thru 1S100



Schottky Barrier Rectifiers



Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
1Sxx	General
1Sxx-H	Halogen Free
1Sxx-Q	Automotive

PRIMARY CHARACTERISTICS

I_F	1A
V_{RRM}	20~100V
I_{FSM}	20A
V_F	0.52, 0.55V, 0.65, 0.85
$T_J \text{ max}$	125°C

Features

- Guardring for overvoltage protection
- Very small conduction losses
- Low forward voltage drop
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Mechanical Data

- Cases: R-1
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.2 grams (approximate)

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

PARAMETER	SYMBOL	1S20	1S30	1S40	1S50	1S60	1S80	1S100	UNIT
Maximum repetitive 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	I _F	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	20.0							A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V _F	0.52	0.55		0.65		0.85		V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	0.1 50							mA
Typical Junction Capacitance(NOTE1)	C _j	100			80		60		pF
Typical Thermal Resistance	R _{θJA}	70							°C/W
Operating Temperature Range	T _J	-55 to +125							°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

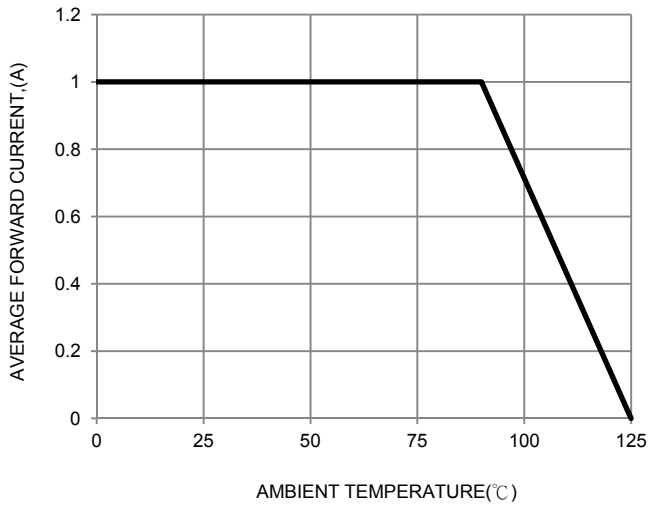


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

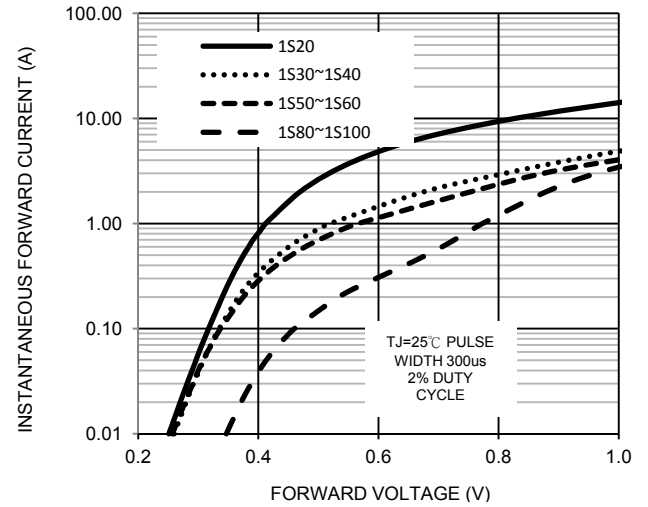


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

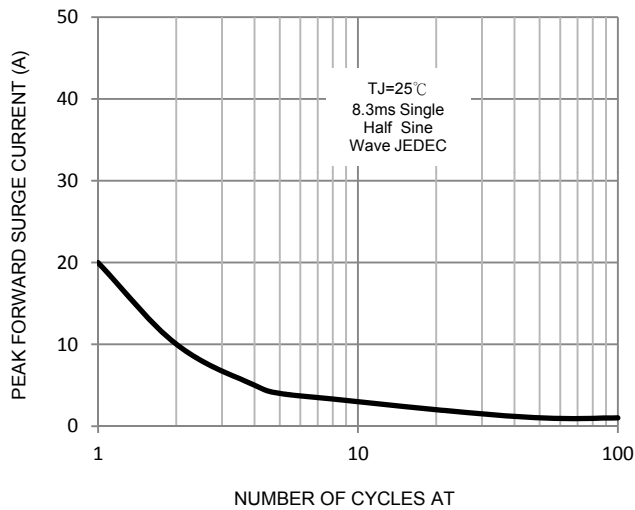


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

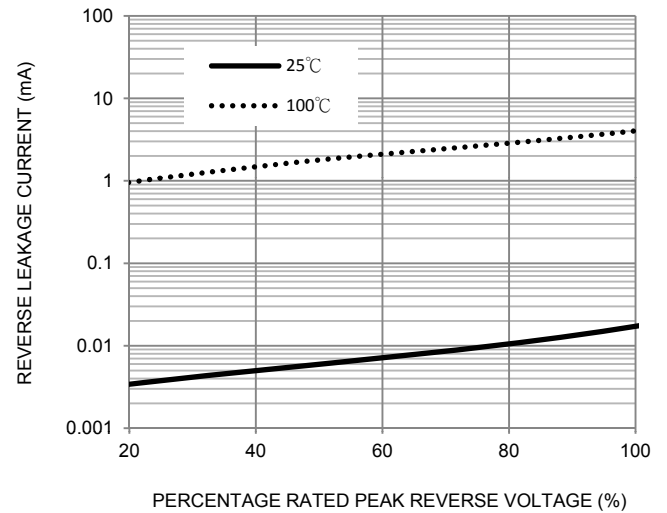


FIG. 5-TYPICAL JUNCTION CAPACITANCE

