



1S20 thru 1S100



Schottky Barrier Rectifiers



R-1

Features
<ul style="list-style-type: none"> • Guardring for overvoltage protection • Very small conduction losses • Low forward voltage drop • Component in accordance to RoHS 2002/95/EC

Ordering Information		
Part No.	Package	Packing
1Sxx	R-1	1000 / Box

Device P/N	
Part Number	Remark
1Sxx	General
1Sxx-H	Halogen Free

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

Mechanical Data
<ul style="list-style-type: none"> • 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: 0.201 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	20	30	40	50	60	80	100	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	20							A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V_F	0.52	0.55	0.65		0.85		V	
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.1 50							mA
Typical Junction Capacitance(NOTE1)	C_j	40					28		pF
Typical Thermal Resistance	$R_{\theta JA}$	70							°C/W
Operating Temperature Range	T_J	-55 to +125							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C
Marking Code		1S20	1S30	1S40	1S50	1S60	1S80	1S100	

NOTES:

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



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

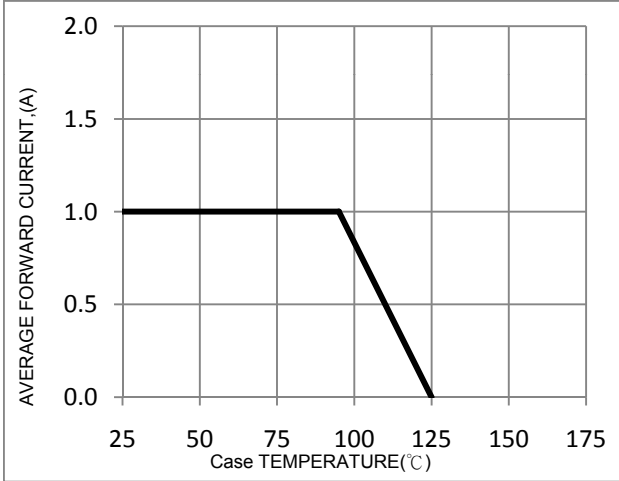


FIG. 2-Typical Forward Characteristics

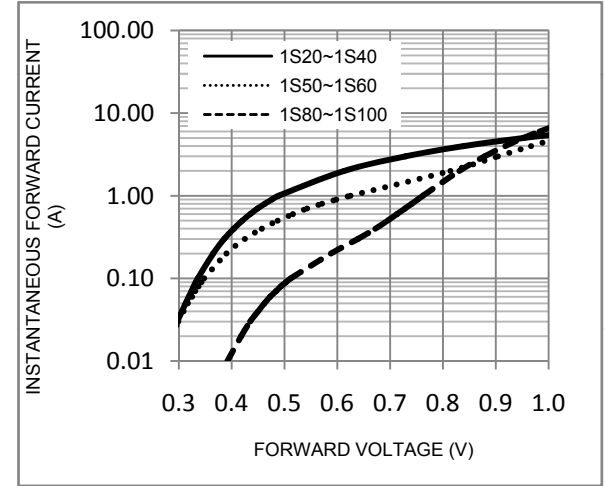


FIG. 3-Maximum Non-Repetitive Forward Surge Current

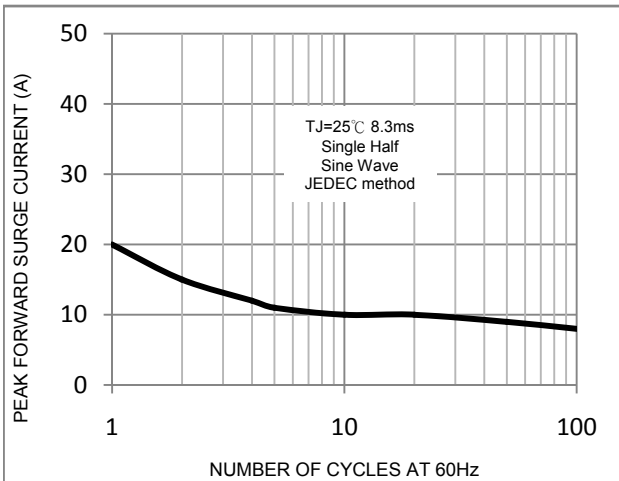


FIG. 4-Typical Reverse Characteristics

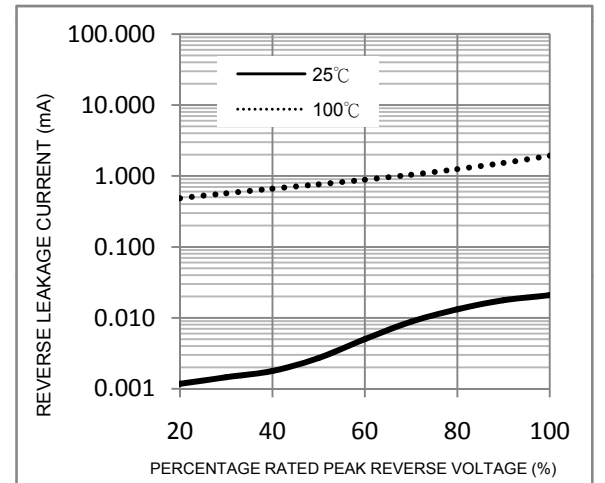
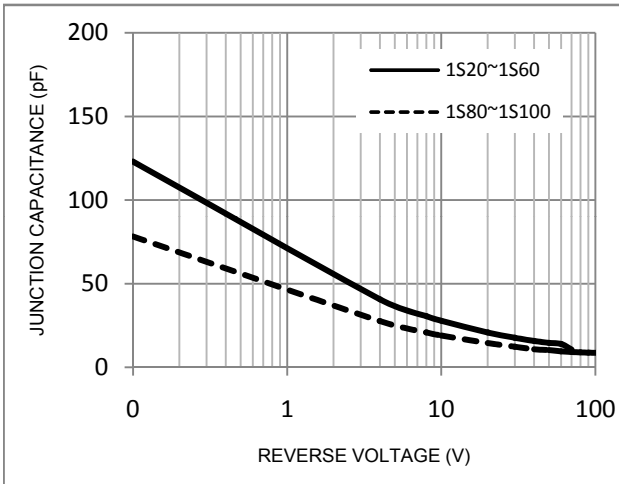


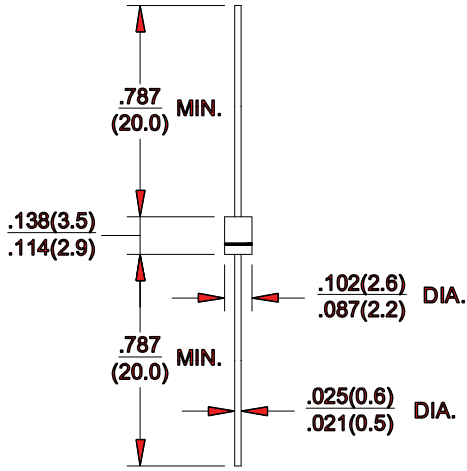
FIG. 5-Typical Junction Capacitance





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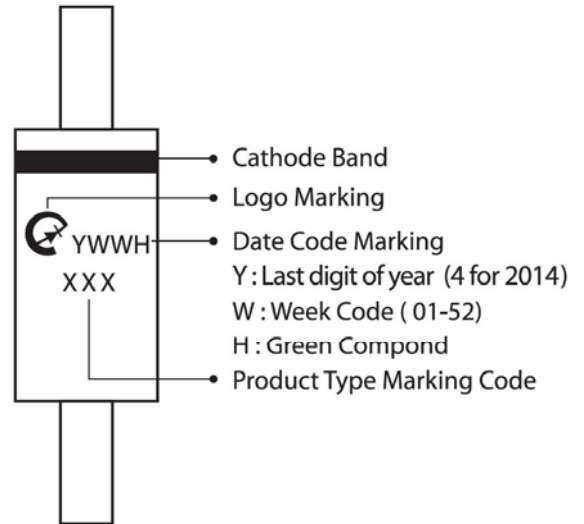
Package Outline Dimensions



R-1

Dimensions in inches and (millimeters)

Marking Information



Bulk Packing

Package	Inner Pack	Inner Box (EA)	Inner Box (mm)	Carton (EA)	Carton Size (mm)	Gross Weight (Kg)-Approx.
R-1	Box	1000	192x85x21	50000	475x220x260	12.8