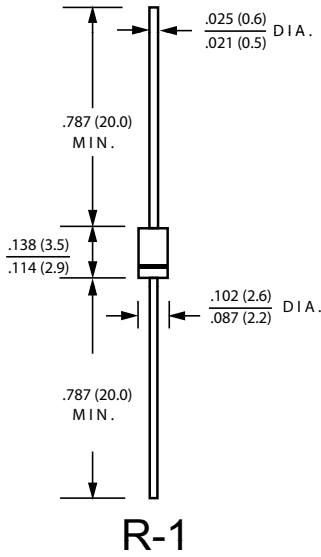




Schottky Barrier Rectifiers



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	$R_{\theta JA}$	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

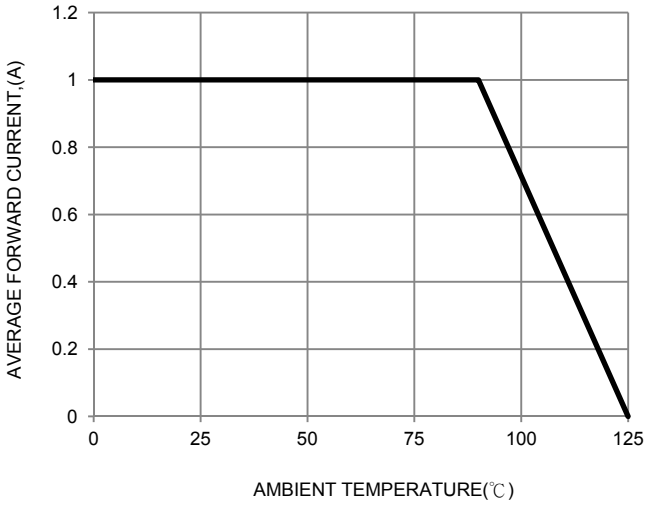


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

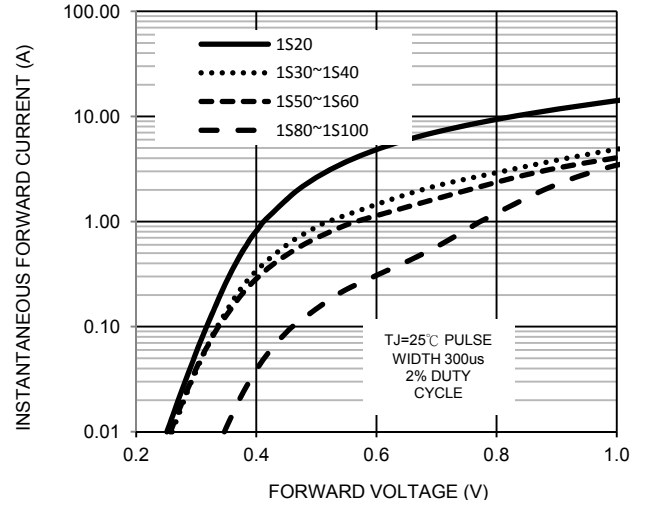


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

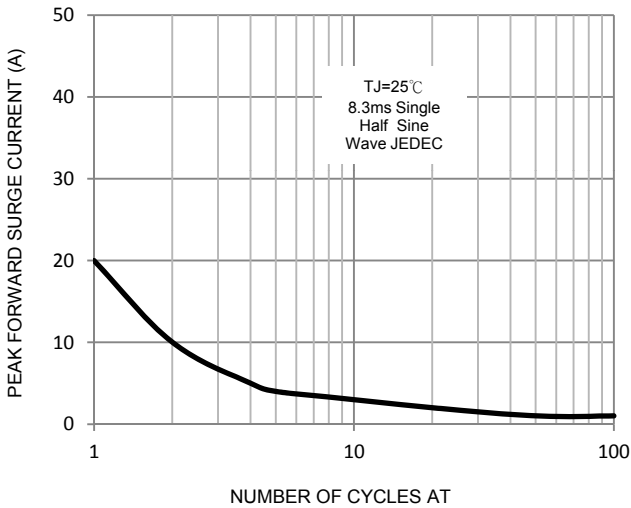


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

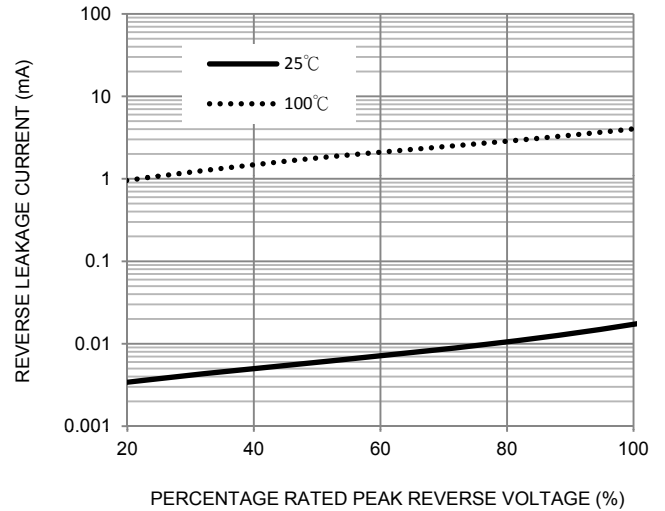


FIG. 5-TYPICAL JUNCTION CAPACITANCE

