



# 1S2 THRU 1S25

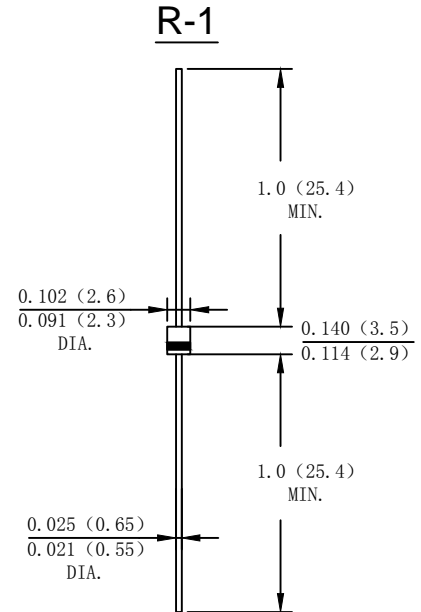
## 1.0 AMP. Schottky Barrier Rectifiers

### Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: Molded plastic R-1
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version



Dimensions in inches and(millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	1S2	1S3	1S4	1S45	1S5	1S6	1S8	1S10	1S15	1S20	1S25	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current (Note 1) @ $T_A = 75^\circ\text{C}$	$I_O$	1.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30											A	
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	0.55			0.7			0.85		0.92		0.95	V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	$I_R$	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		10.0						5.0						
Typical Junction Capacitance (Note 2)	$C_J$	110											pF	
Typical Thermal Resistance Junction to Ambient(Note 1)	$R_{\theta JA}$	80											$^\circ\text{C}/\text{W}$	
Operating Temperature Range	$T_J$	-55 to +150											$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150											$^\circ\text{C}$	

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

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Fig.1-FORWARD CURRENT DERATING CURVE

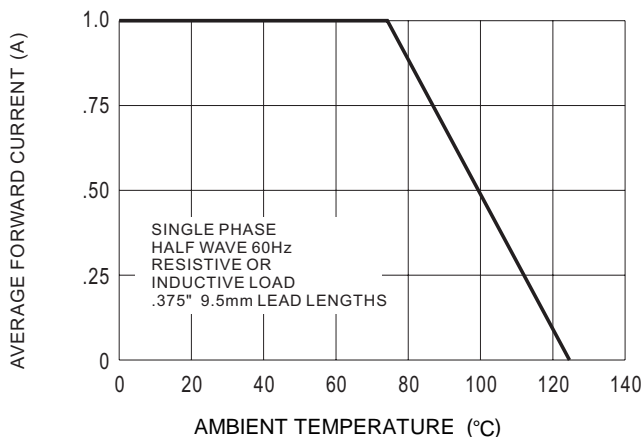


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

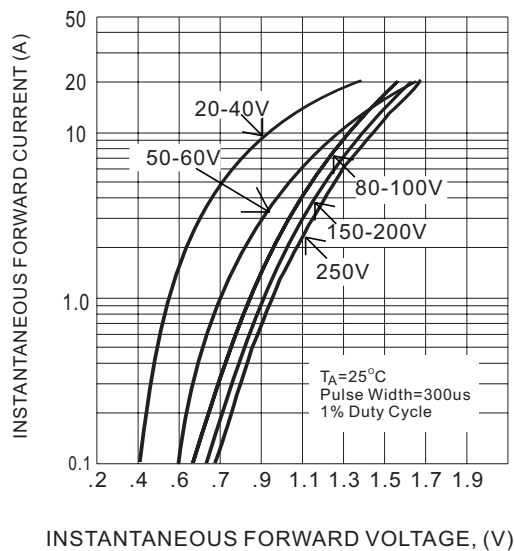


Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

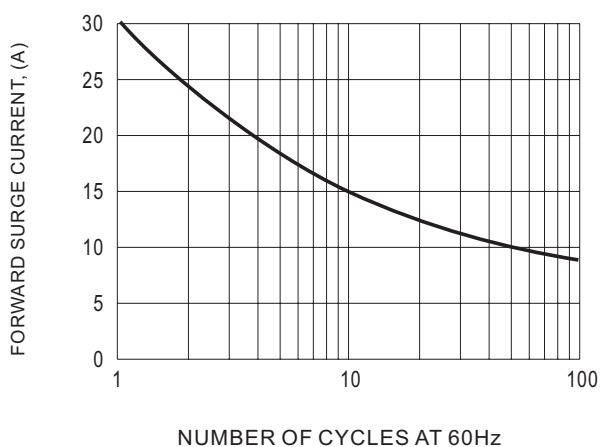


Fig.4-TYPICAL JUNCTION CAPACITANCE

