



# SR820 THRU SR8200

## SCHOTTKY BARRIER RECTIFIERS

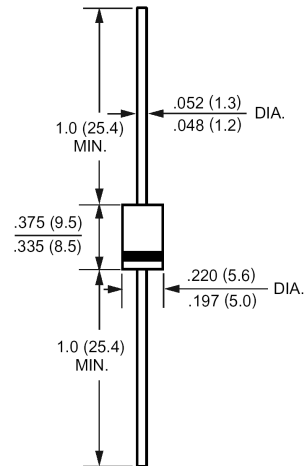
### FEATURES

- Guardring for overvoltage protection
- Very small conduction losses
- Extremely fast switching
- Low forward voltage drop
- High frequency operation
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 1.10 gramS

### DO-201AD(DO-27)



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	SR 820	SR 830	SR 840	SR 850	SR 860	SR 870	SR 880	SR 890	SR 8100	SR 8150	SR 8200	UNIT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	105	140	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum average forward rectified current 0.375" (9.5mm) lead length	$I_{(AV)}$	8.0											Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150											Amps	
Maximum instantaneous forward voltage at 8.0A	$V_F$	0.55			0.70			0.85			0.95		Volts	
Maximum DC reverse current $T_A=25\text{ }^\circ\text{C}$		0.5											mA	
at rated DC blocking voltage $T_A=100\text{ }^\circ\text{C}$	$I_R$	20.0					10.0					2.0		
Typical junction capacitance (NOTE 1)	$C_J$	500.0					400.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	25.0											$^\circ\text{C}/\text{W}$	
Operating junction temperature range	$T_J$	-65 to +125						-65 to +150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65 to +150											$^\circ\text{C}$	

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted





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### RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

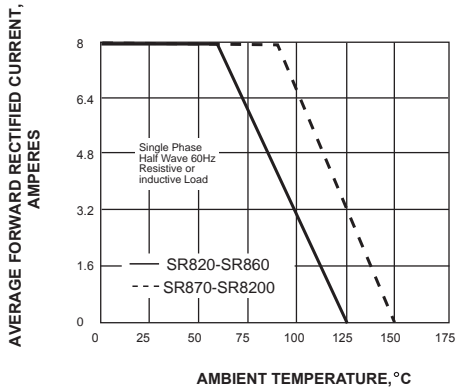


FIG.2-TYPICAL FORWARD CHARACTERISTICS

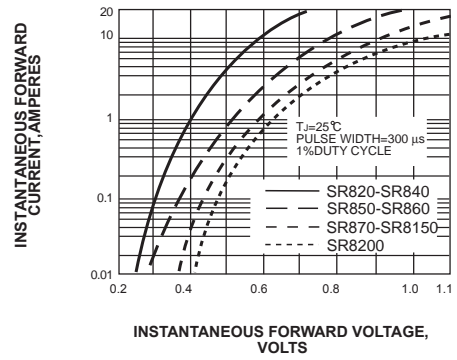


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

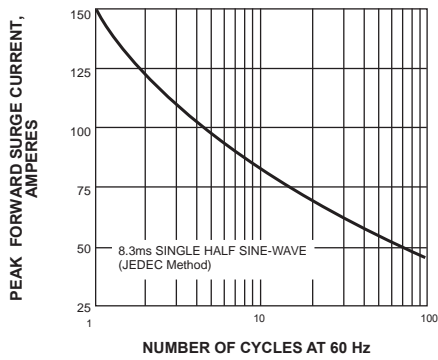


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

