



# SRD820 THRU SRD860

## 8.0 AMPS. Schottky Barrier Rectifiers



Voltage Range  
20 to 60 Volts  
Current  
8.0 Amperes

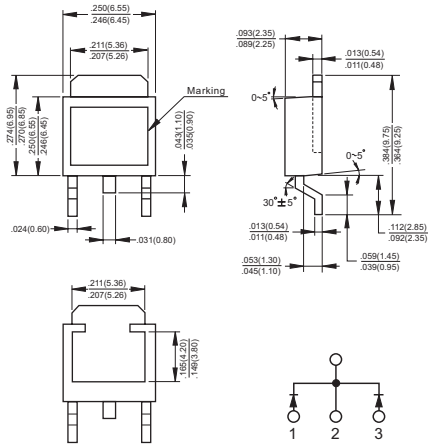
### Features

- ✦ Low forward voltage
- ✦ 125°C operating junction temperature
- ✦ Epoxy meets UL94, VO at 1/8"
- ✦ Guaranteed reverse avalanche
- ✦ Compact size
- ✦ Lead formed for surface mount

### Mechanical Data

- ✦ Cases: Epoxy, molded
- ✦ Weight: 0.4 gram (approximately)
- ✦ Finish: All external surfaces corrosion resistant and terminal leads are readily solderable
- ✦ Lead and mounting surface temperature for soldering purposes: 260°C max. for 10 seconds
- ✦ Shipped 75 units per plastic tube  
Marking: SRD820, SRD830, SRD840, SRD850, SRD860

### DPAK



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Type Number	Symbol	SRD 820	SRD 830	SRD 840	SRD 850	SRD 860	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Rectified Current at $T_c = 88^\circ\text{C}$	$I_{(AV)}$	8.0					A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 HZ)	$I_{FSM}$	75					A
Maximum Instantaneous Forward Voltage at @4.0A	$V_F$	0.55		0.7			V
Maximum D.C. Reverse Current @ $T_c = 25^\circ\text{C}$ at Rated DC Blocking Voltage(Note 1) @ $T_c = 100^\circ\text{C}$	$I_R$	1.4 35					mA mA
Maximum Thermal Resistance Per Leg (Note 2)	$R\theta_{JC}$ $R\theta_{JA}$	6 80					$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-65 to +125					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150					$^\circ\text{C}$

Notes: 1. Pulse Test: Pulse Width = 300us, 2.0% Duty Cycle.

2. Thermal Resistance from Junction to Case and Thermal Resistance from Junction to Ambient.

## RATINGS AND CHARACTERISTIC CURVES (SRD820 THRU SRD860 )

FIG.1- FORWARD CURRENT DERATING CURVE

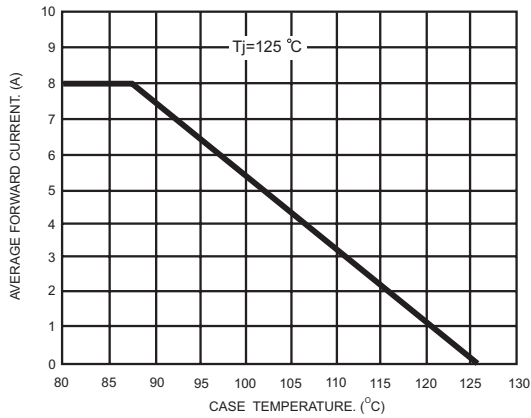


FIG.2-TYPICAL FORWARD CHARACTERISTICS PER LEG

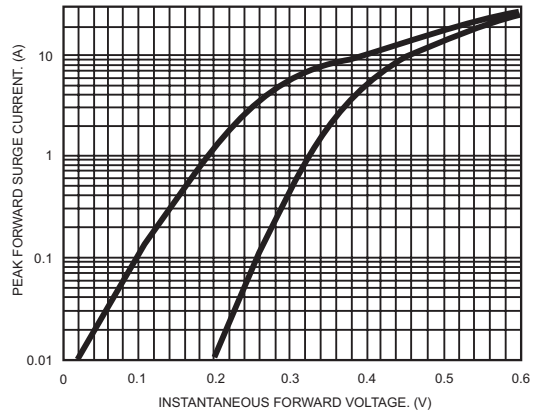


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

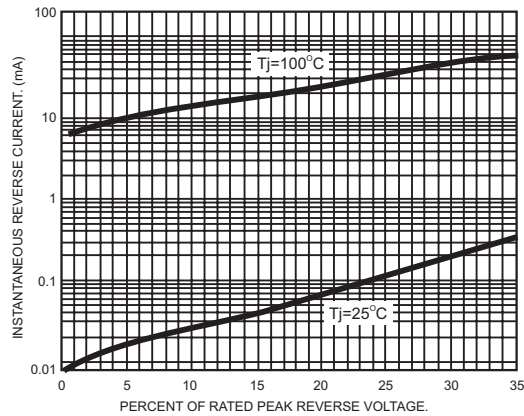


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

