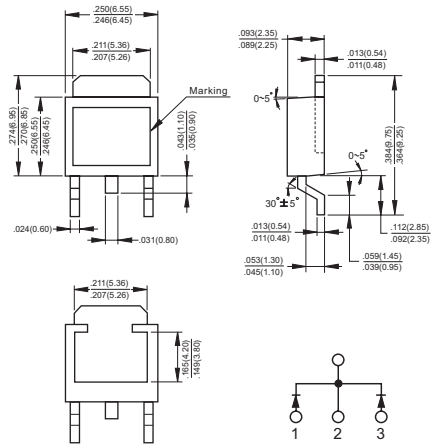
SRD1020 THRU SRD10100

10.0 AMPS. Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
10.0 Amperes

D-PAK



Dimensions in inches and (millimeters)

Features

- ✧ Highly stable oxide passivated junction
- ✧ Guarding for stress protection
- ✧ Matched dual die construction – May be Paralleled for high current output
- ✧ High dv/dt capability
- ✧ Short heat sink tap manufactured – not sheared
- ✧ Very low forward voltage drop
- ✧ Epoxy meets UL94, VO at 1/8"

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: SRD1020, SRD1030, SRD1040, SRD1050, SRD1060

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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 1020	SRD 1030	SRD 1040	SRD 1050	SRD 1060	SRD 10100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	100	V
Maximum Average Forward Rectified Current at T_C=115℃	$I_{(AV)}$	10						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 @5.0A	V_F	0.55			0.7		0.90	V
Maximum D.C. Reverse Current @ Tc=25℃ at Rated DC Blocking Voltage(Note 1) @ Tc=100℃	I_R	2.0 30					1.0 30	mA mA
Maximum Thermal Resistance Per Leg (Note 2)	$R\theta_{JC}$ $R\theta_{JA}$	3 75						℃/W
Operating Junction Temperature Range	T_J	-55 to +125						℃
Storage Temperature Range	T_{STG}	-55 to +150						℃

Notes: 1. Pulse Test: Pulse Width = 300 us, 2.0% Duty Cycle.
2. Thermal Resistance from Junction to Case and Thermal Resistance from Junction to Ambient.

RATINGS AND CHARACTERISTIC CURVES (SRD1020 THRU SRD10100)

FIG.1- FORWARD CURRENT DERATING CURVE

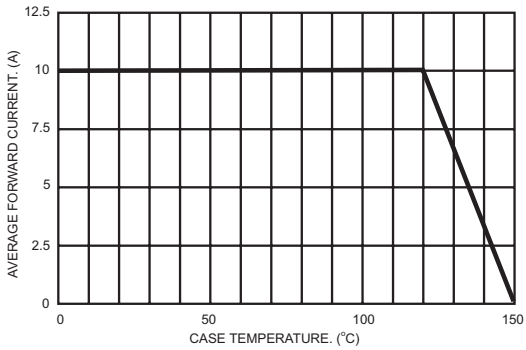


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

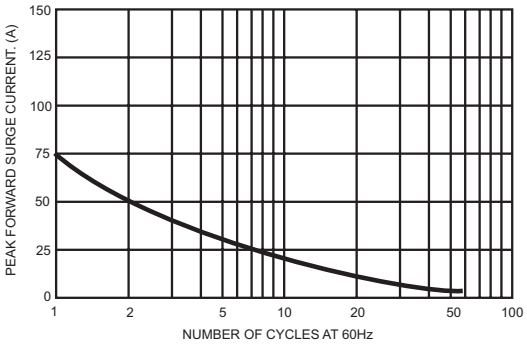


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

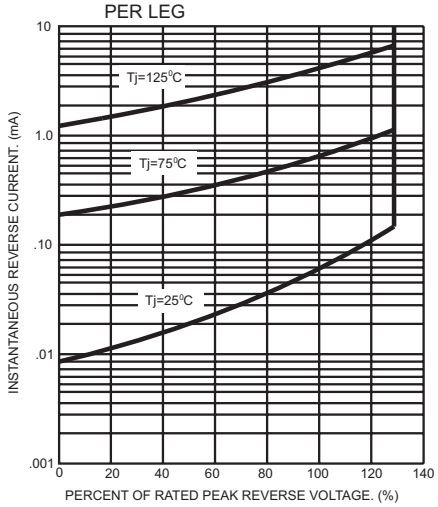


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER LEG

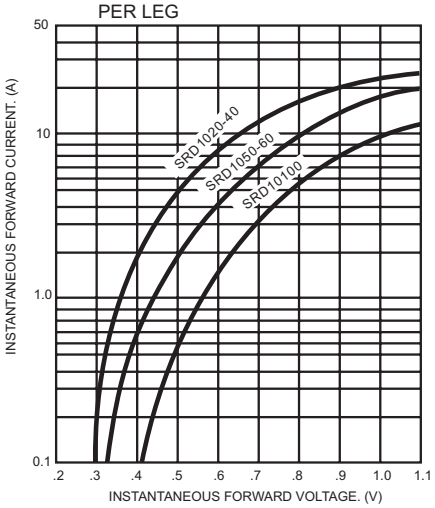


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG