SR520 THRU SR5100

5.0 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Epitaxial construction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 1.10 grams
* Both normal and Pb free product are available:
* Normal:80~95%Sn,5~20%Pb
* Pb free:99 Sn above can meet Rohs enviroment substance directive request

VOLTAGE RANGE
20 to 100 Volts
CURRENT
5.0 Amperes

DO-27

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	45	50	60	80	100	V
Maximum RMS Voltage	14	21	32	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	45	50	60	80	100	V
Maximum Average Forward Rectified Current See Fig. 1	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55			0.70		0.85		V
Maximum DC Reverse Current Ta=25℃	500							uA
at Rated DC Blocking Voltage Ta=100℃	50							mA
Typical Junction Capacitance (Note1)	380							pF
Typical Thermal Resistance RθJA (Note 2)	10							℃/W
Operating Temperature Range T_J	-65 —+125			-65 —+150				℃
Storage Temperature Range T_{STG}	-65 — +150							℃

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SR520 THRU SR5100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

FIG.2-TYPICAL FORWARD CHARACTERISTICS

FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG.4-TYPICAL JUNCTION CAPACITANCE

FIG.5 - TYPICAL REVERSE CHARACTERISTICS