

CHENMKO ENTERPRISE CO.,LTD

SR020PT **THRU** SR060PT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 60 Volts CURRENT 1.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low switching noise
- Low forward voltage drop High current capability
- High switching capability
- High reliability
- High surge capability
- High temperature soldering guaranteed : 260°C/10 seconds , 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC R-1 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750,

Method 2026

Polarity: Color band denotes cathode end

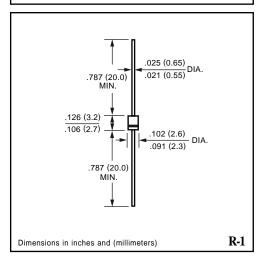
Mounting Position: Any Weight: 0.19 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

R-1



MAXIMUM RATINGES (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR020PT	SR030PT	SR040PT	SR050PT	SR060PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	Volts
Maximum RMS Voltage	VRMS	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length (SEE FIG.1)	lo	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30					Amps
Typical Junction Capacitance (Note 1)	C1	110					pF
Typical Thermal Resistance (Note 2)	R θ JA	80					°C/W
Operating Temperature Range	TJ	-65 to +125 -65 to +150			+150	°C	
Storage Temperature Range	Тѕтс	-65 to +150					°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

	ELLOTRIONE CHARACTERIOTICS (711 1X = 20 C	dilicos otilei wise	noted)						
	CHARACTERISTICS Maximum Instantaneous Forward Voltage at 1.0 A DC		SYMBOL	SR020PT	SR030PT	SR040PT	SR050PT	SR060PT	UNITS
			VF	0.55			0.	0.70	
	Maximum Average Reverse Current	@ TA = 25°C	l _R	1.0					mAmps
	at Rated DC Blocking Voltage	@ Ta = 100°C	I IR	10					mAmps

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

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

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RATING CHARACTERISTIC CURVES (SR020PT THRU SR060PT) FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE FIG. 2 - TYPICAL INSTANTANEOUS INSTANTANEOUS FORWARD CURRENT, (A) FORWARD CHARACTERISTICS 20 AVERAGE FORWARD CURRENT, (A) 10 .75 SR020PT .50 1.0 Single Half Wave 60Hz .25 Resistive or Inductive Load 1% Duty Cycle 0 0.1 0 25 50 75 100 150 175 .9 1.1 1.3 1.5 1.7 LEAD TEMPERATURE, (°C) INSTANTANEOUS FORWARD VOLTAGE,(V) FIG. 3A - TYPICAL REVERSE CHARACTERISTICS FIG. 3B - TYPICAL REVERSE CHARACTERISTICS 100 100 INSTANTANEOUS REVERSE CURRENT, (mA) INSTANTANEOUS REVERSE CURRENT, (mA) TJ = 125°C 10 10 1.0 ■ TJ = 75°C .10 .10 .01 .01 .001 .001 140 0 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) PERCENT OF RATED PEAK REVERSE VOLTAGE, (%) FIG. 4 - TYPICAL JUNCTION CAPACITANCE FIG. 5 - MAXIMUM NON-REPETIVE FORWARD SURGE CURRENT 400 PEAK FORWARD SURGE CURRETN(A) 50 JUNCTION CAPACITANCE, (pF.) 200 40 8.3ms Single Half Sine-Wave (JEDEC Method) 100 80 30 60 20 40 10 20 10 40 2 80 100 6 8 10 40 REVERSE VOLTAGE, (V) NUMBER OF CYCLES AT 60 Hz