



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices* SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 Volts CURRENT 25 Amperes

**S25S20GP**

#### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Metal Silicon junction, majority carrier conduction
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* Guardring for overvoltage protection
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* High temperature soldering in accordance with CECC 802 / Reflow guaranteed

#### MECHANICAL DATA

**Case:** JEDEC D2PAK molded plastic

**Terminals:** Lead solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Weight:** 0.08 ounces, 2.24 grams

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

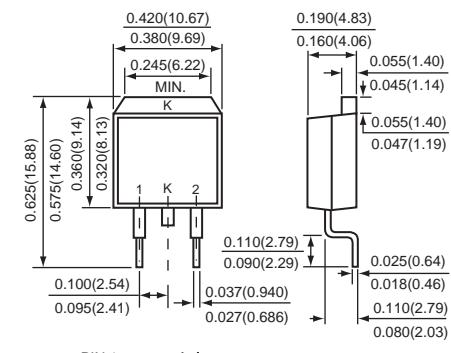
Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.



**D2PAK**



Dimensions in inches and (millimeters)

**D2PAK**

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

RATINGS	SYMBOL	S25S20GP	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	25.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	180	Amps
Typical thermal resistance per leg ( NOTE 1 )	R <sub>θJC</sub>	1.8	°C / W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125	°C

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

CHARACTERISTICS	SYMBOL	S25S20GP	UNITS
Maximum Instantaneous Forward Voltage at 12.5 A DC	V <sub>F</sub>	0.55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg ( NOTE 2 )	I <sub>R</sub>	1.0	mAmps
T <sub>C</sub> = 25°C		50	mAmps

NOTES : 1. Thermal resistance from junction to case per leg  
2. Pulse test : 300 us pulse width, 1% duty cycle

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## RATING CHARACTERISTIC CURVES ( S25S20GP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

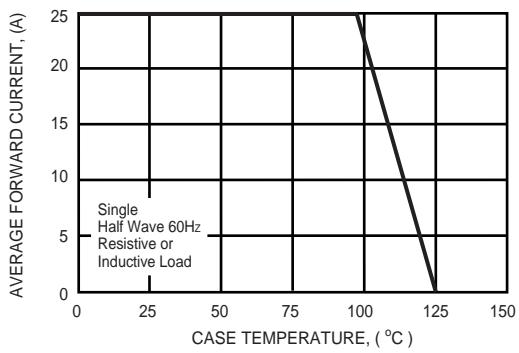


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

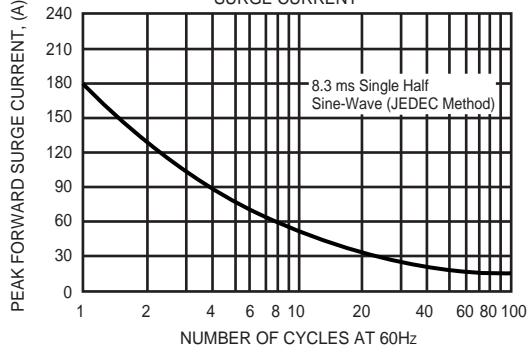


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

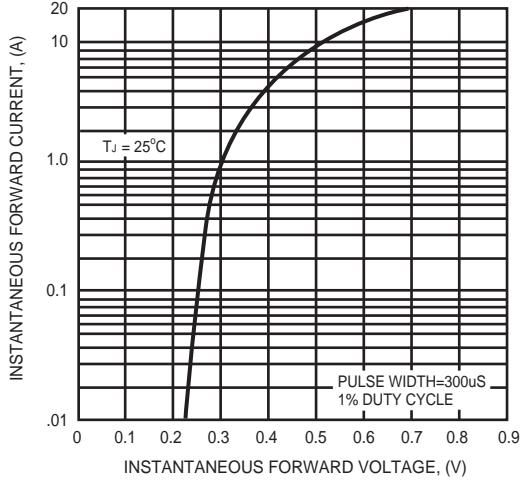


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

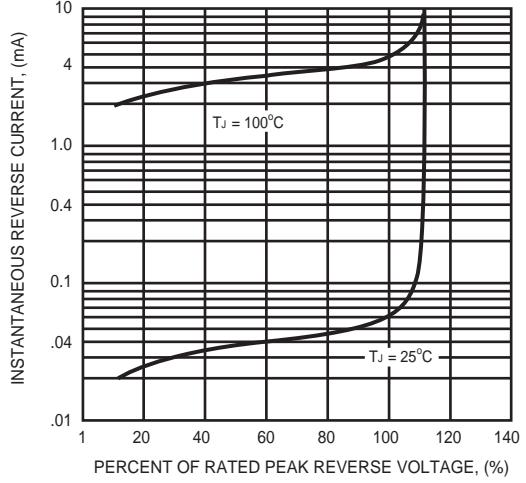


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

