



CHENMKO ENTERPRISE CO.,LTD

S10S30PT

THRU

S10S45PT

Lead free devices

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 - 45 Volts CURRENT 10 Amperes

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

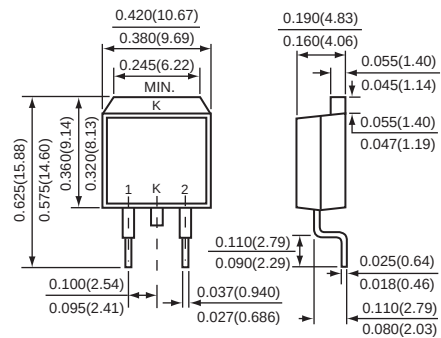
Weight: 0.08 ounces, 2.24 grams

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	S10S30PT	S10S35PT	S10S40PT	S10S45PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	Volts
Maximum RMS Voltage	V_{RMS}	21	24	28	31	Volts
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	Volts
Maximum Average Forward Rectified Current	I_O	10.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150				Amps
Typical thermal resistance per leg (NOTE 1)	$R_{\theta JC}$	3.0				$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-40 to +125				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	S10S30PT	S10S35PT	S10S40PT	S10S45PT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC	V_F	0.55				Volts
Maximum instantaneous reverse current at $T_C = 25^\circ\text{C}$	I_R	1.0				mAmps
rated DC blocking voltage per leg (NOTE 2) $T_C = 100^\circ\text{C}$		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 (S10S30PT THRU S10S45PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

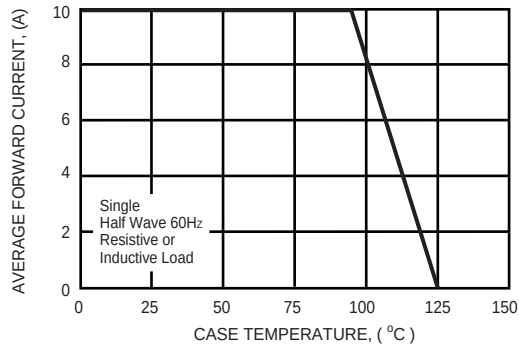


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

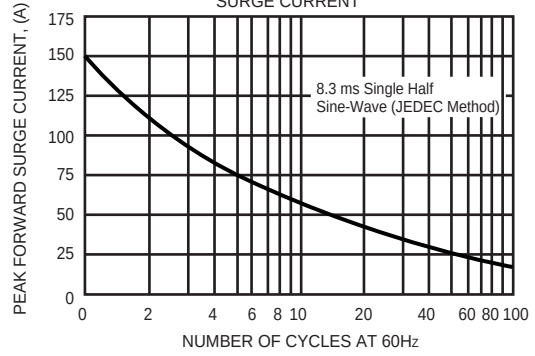


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

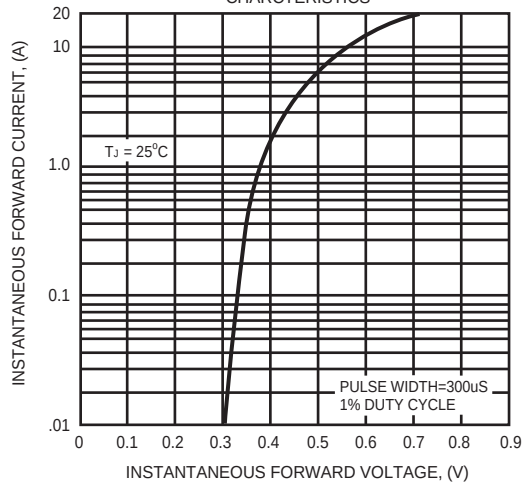


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

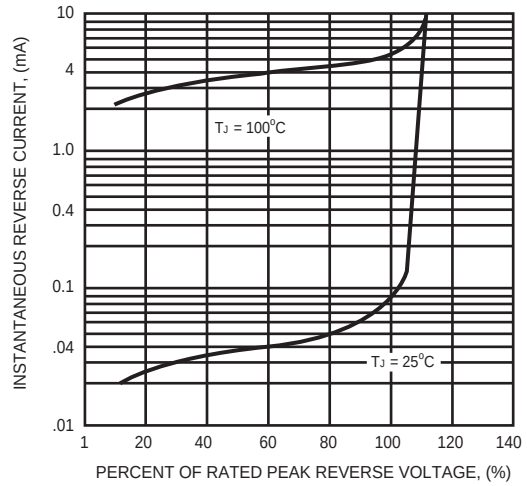


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

