

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 to 200 Volts CURRENT 8.0 Amperes

FEATURES

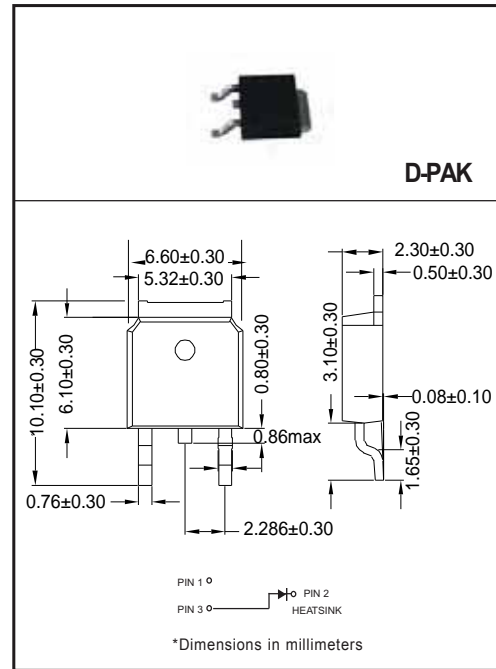
- * High reliability
- * Low switching loss
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * P/N suffix V means AEC-Q101 qualified, e.g:SR840KV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * Case: D-PAK Molded plastic
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting: position: Any

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%.



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

RATINGS	SYMBOL	SR840K	SR845K	SR850K	SR860K	SR880K	SR8100K	SR8150K	SR8200K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	28	20	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	8.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150								Amps
Typical Current Squared Time	I^2T	93.37								A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	60								°C/W
	$R_{\theta JC}$	3								
Typical Junction Capacitance (Note 2)	C_J	700						450	pF	
Operating Temperature Range	T_J	-55 to + 150								°C
Storage Temperature Range	T_{STG}	-55 to + 150								°C

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

CHARACTERISTICS	SYMBOL	SR840K	SR845K	SR850K	SR860K	SR880K	SR8100K	SR8150K	SR8200K	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	V_F	.65		.75		.85				Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	@ $T_A = 25^\circ C$	0.2								mA
		@ $T_A = 150^\circ C$	10								mA

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. " ROHS compliant"
4. Suffix "R" for Reverse Polarity.
5. Suffix "K" for D-PAK Pkg.

RATING AND CHARACTERISTICS CURVES (SR840K THRU SR8200K)

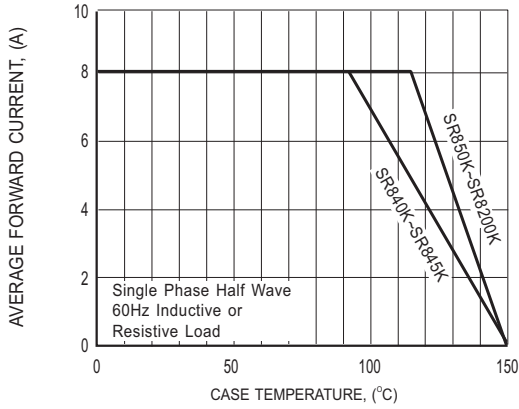


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

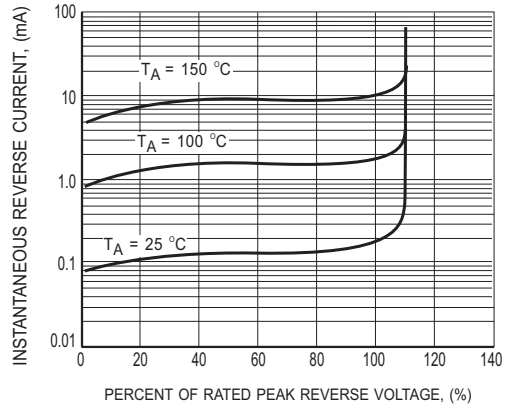


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

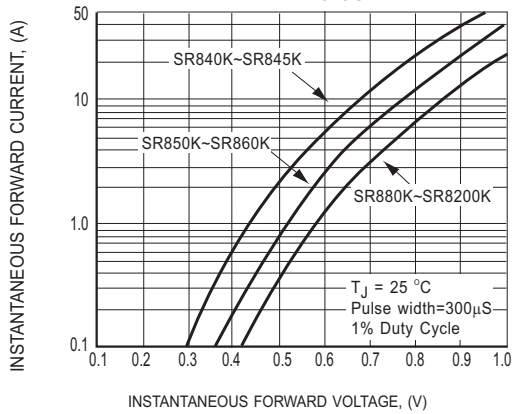


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

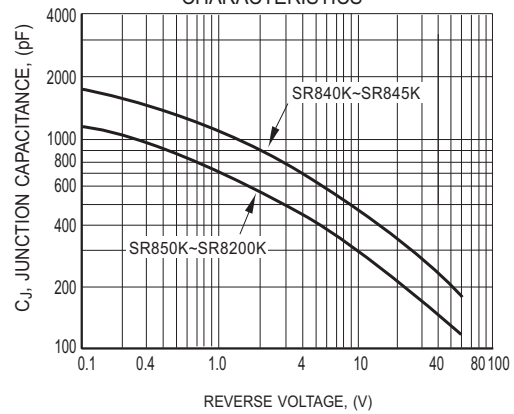


FIG.4 TYPICAL JUNCTION CAPACITANCE

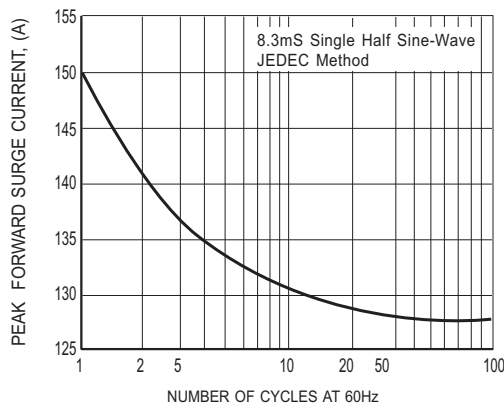


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



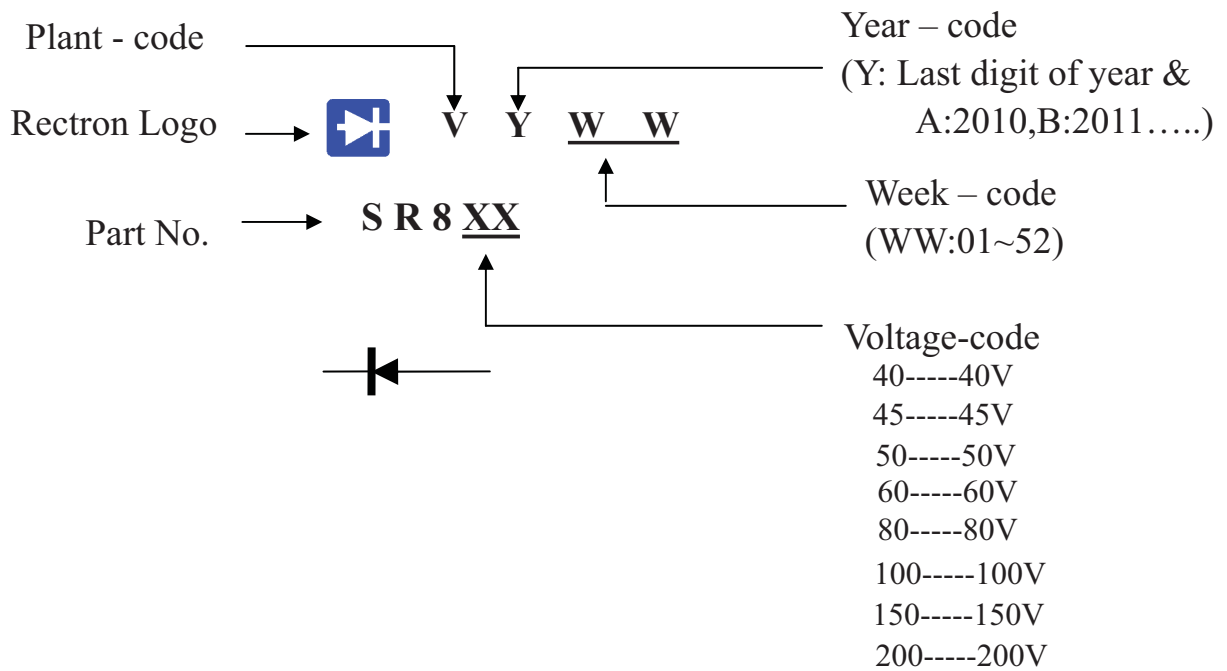
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Attachment information about SR8XXK

1. Internal Circuit



2. Marking on the body



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DPAK	-W/-C	2,500	2,500	338*338*40	360*355*360	20,000	---

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