

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 16 Amperes

FEATURES

- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

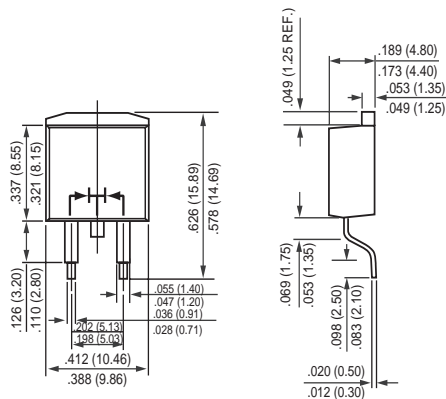
- * Case: D2PAK molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.2 grams

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)

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

RATINGS	SYMBOL	SR1620CS	SR1630CS	SR1635CS	SR1640CS	SR1645CS	SR1650CS	SR1660CS	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	V _{RMS}	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I _O	16							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 (Note 1)	R _{θJC}	3							°C/W
Typical Junction Capacitance (Note 3)	C _J	700					500		pF
Operating Temperature Range	T _J	-55 to + 150							°C
Storage Temperature Range	T _{STG}	-55 to + 150							°C

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

CHARACTERISTICS		SYMBOL	SR1620CS	SR1630CS	SR1635CS	SR1640CS	SR1645CS	SR1650CS	SR1660CS	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC		V_F	.65					.75		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_C = 25^\circ\text{C}$	I_R	10							mAmps
	@ $T_C = 100^\circ\text{C}$		100							mAmps

NOTES : 1. Thermal Resistance Junction to Case.
2. Suffix "A" = Common Anode.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SR1620CS THRU SR1660CS)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

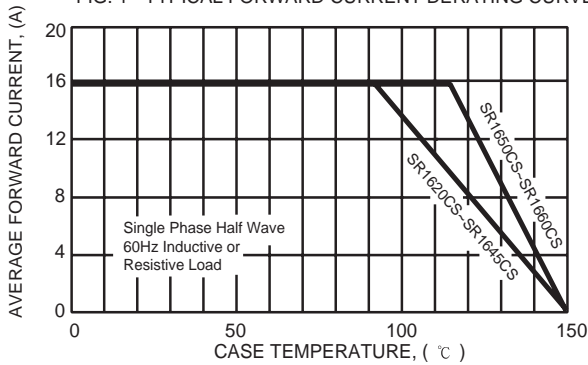


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

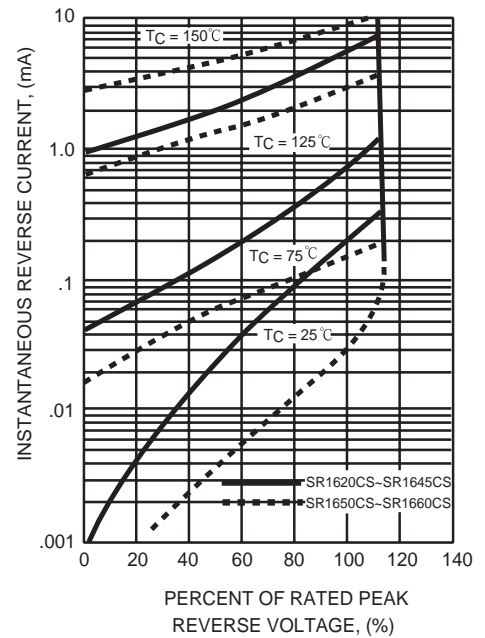


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

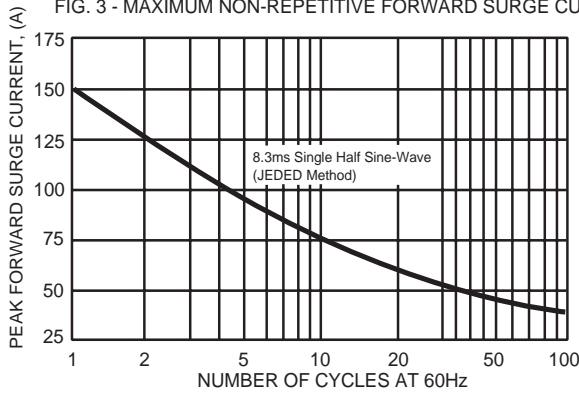


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

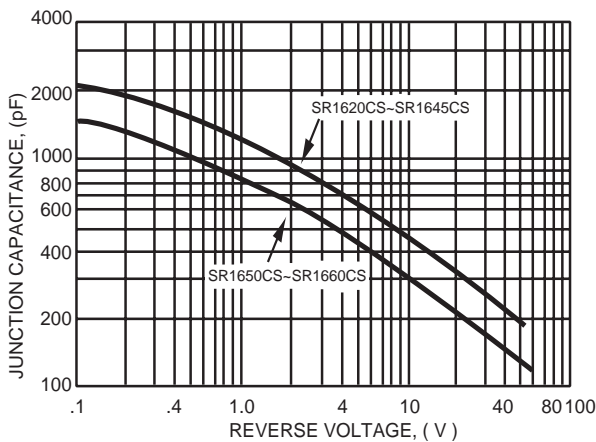


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

