SR1620 THRU SR16200

SCHOTTKY BARRIER RECTIFIER

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HORNBY ELECTRONIC

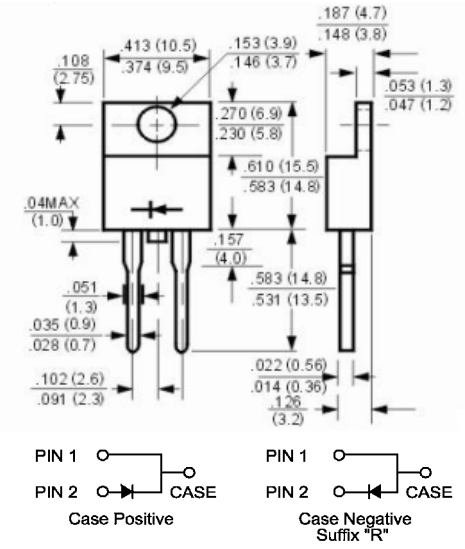
REVERSE VOLTAGE: **20 to 200 VOLTS**

FORWARD CURRENT: **16.0 AMPERE**

FEATURES

- Plastic package has UL flammability classification 94V-0
- Metal of silicon rectifier,majority carrier conduction
- Guard ring for transient protection
- High capability
- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage,high frequency inverters,free whelling,and polarity protection applications

TO-220A



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, TO-220A

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.24gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	*SR1620*	*SR1630*	*SR1640*	*SR1650*	*SR1660*	*SR1680*	*SR16100*	*SR16150*	*SR16200*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	**Volts**
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	**Volts**
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	**Volts**
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	16.0									**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200									**Amp**
Maximum Forward Voltage at 16.0A DC and 25℃	V_F	0.55			0.70		0.85		0.95		**Volts**
Maximum Reverse Current at T_C=25℃ / **at Rated DC Blocking Voltage T_C=125℃**	I_R	1.0 / 50									**mAmp**
Typical Junction Capacitance (Note 1)	C_J	750			500						**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.0									**℃/W**
Operating Temperature Range	T_J	-55 to +125			-55 to +150						**℃**
Storage Temperature Range	Tstg	-55 to +150									**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case Per Leg

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RATINGS AND CHARACTERISTIC CURVES

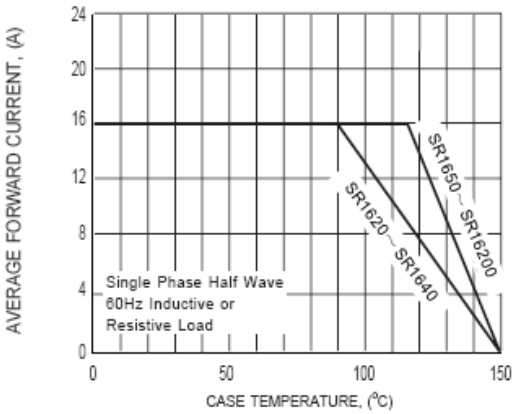

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

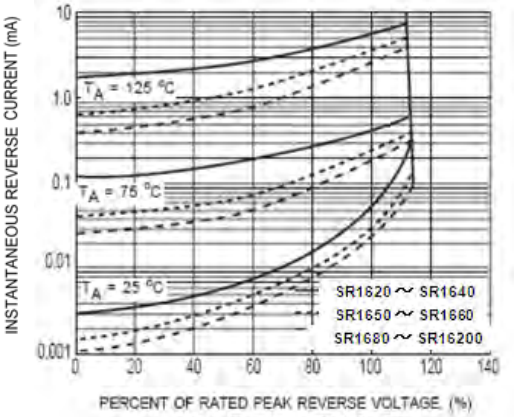

FIG.2 TYPICAL REVERSE CHARACTERISTICS

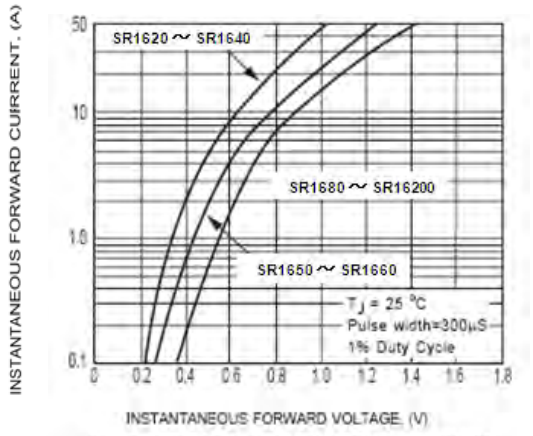

FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

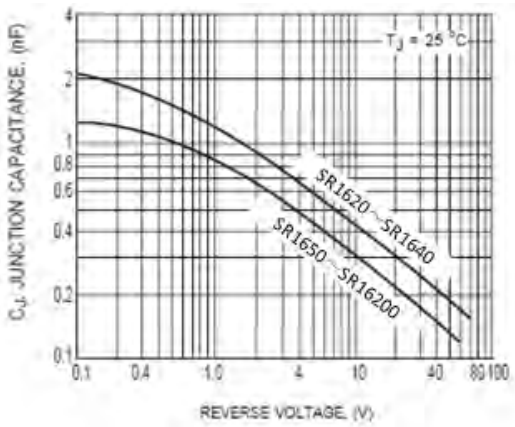

FIG.4 TYPICAL JUNCTION CAPACITANCE

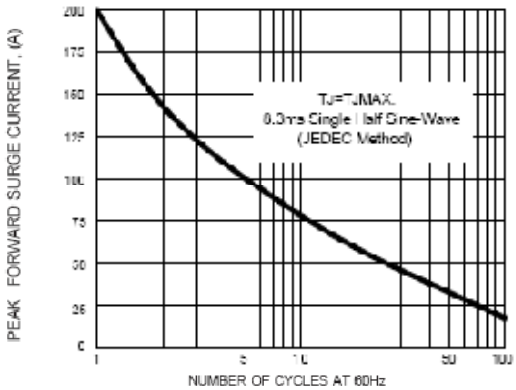

FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT