

Schottky Barrier Rectifier

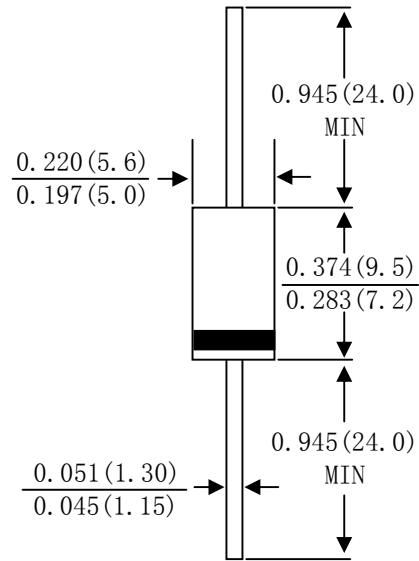
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94-0
- Metal silicon junction, majority carrier conduction
- low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10seconds, 0.375"(9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- **Case:** JEDEC DO-201AD molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half-wave 60Hz, resistive or inductive load, For capacitive load derate current by 20%.

Type Number	SYMBOL	HSR 520	HSR 540	HSR 560	HSR 580	HSR 5100	HSR 5150	HSR 5200	Units
Maximum recurrent peak reverse voltage	V_{RM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum average rectified output current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	5.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120.0							A
Maximum instantaneous forward voltage at 5.0A	V_F	0.55	0.70	0.85			0.95	V	
Maximum DC reverse current @TA=25°C	I_R	0.5					0.2		mA
At Rated DC blocking voltage @TA=100°C		20.0			10.0		2.0		
Typical junction capacitance (Note 1)	C_j	500.0	400.0						pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	30.0							°C/W
Operating junction temperature range	T_j	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

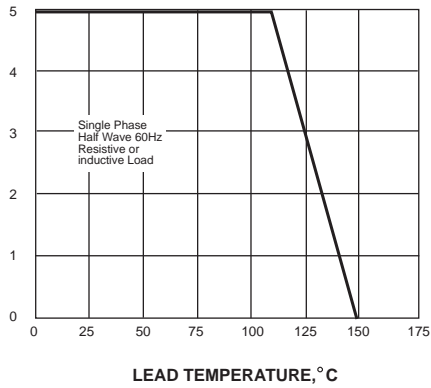
Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted.

RATINGS AND CHARACTERISTIC CURVES HSR520 THRU HSR5200

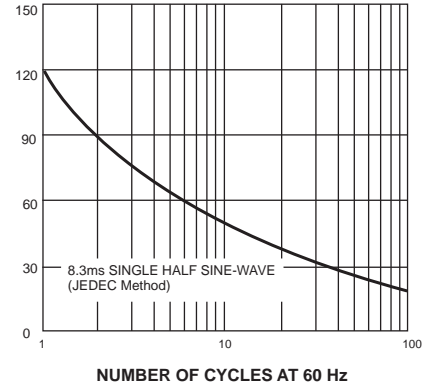
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



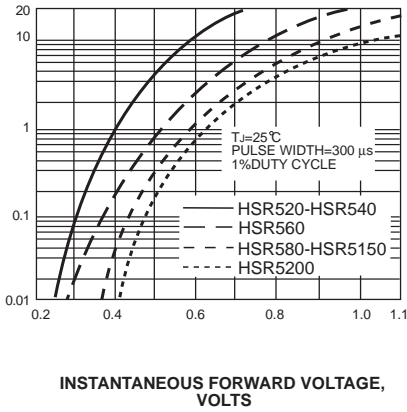
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



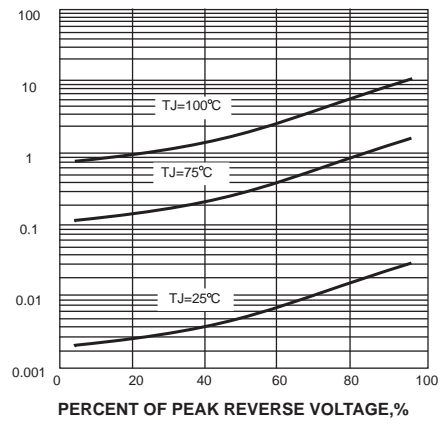
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



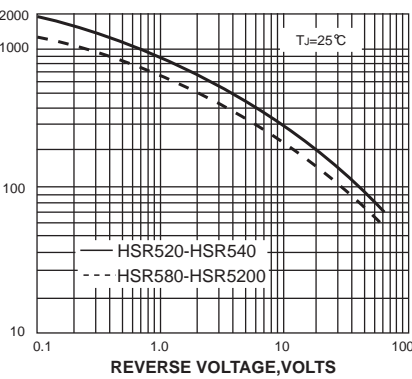
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



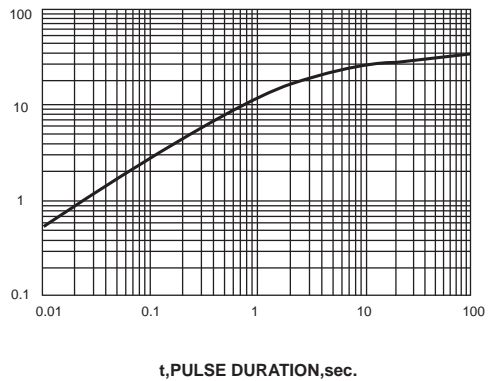
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

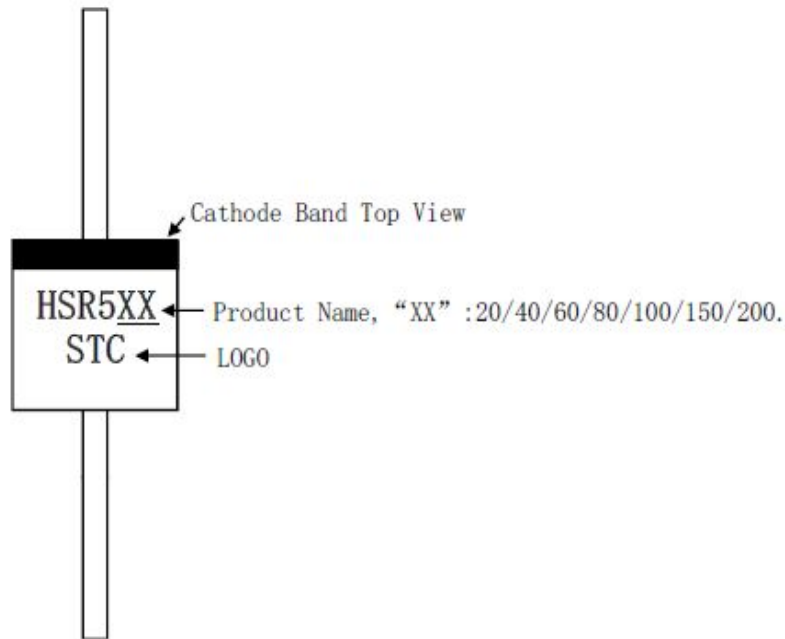


TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PRINTING INSTRUCTIONS



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CONTACT INFORMATION:

DONGGUAN HONGXIN ELECTRONIC CO.,LTD

TEL:0769-83722095/83722096/38832588

FAX:0769-83722090/38832587

E-Mail:hongxin@hongxin-dg.com.cn

<http://www.hongxin-dg.com.cn>

Address: No.1, gongye roab, shangchegang, gekeng village, hengli town, dongguan city, china.