

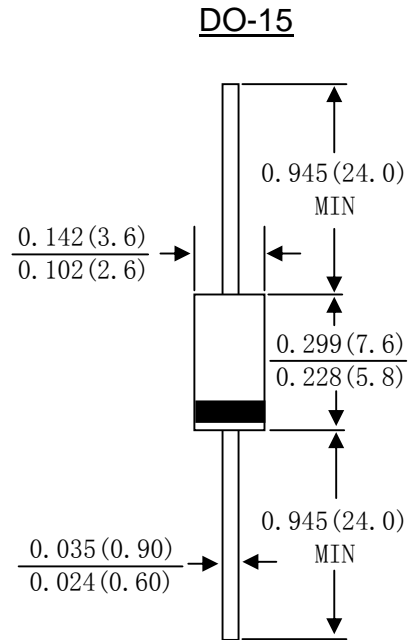
## Schottky Barrier Rectifier

### 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-15 molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



### 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 220	HSR 240	HSR 260	HSR 280	HSR 2100	HSR 2150	HSR 2200	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)	$I_{(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40.0							A
Maximum instantaneous forward voltage at 2.0A	$V_F$	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			5.0		2.0		
Typical junction capacitance (Note 1)	$C_j$	220.0		80.0					pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50.0							°C/W
Operating junction temperature range	$T_j$	-55 to +125			-55 to +150				°C
Storage temperature range	$T_{STG}$	-55 to +150							°C

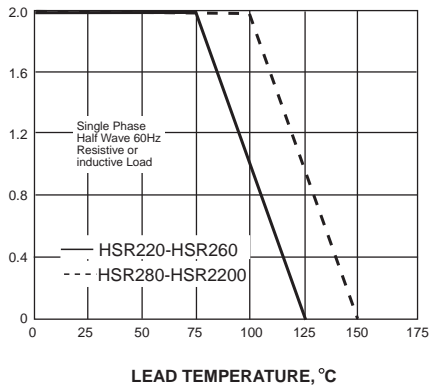
Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

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 HSR220 THRU HSR2200

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

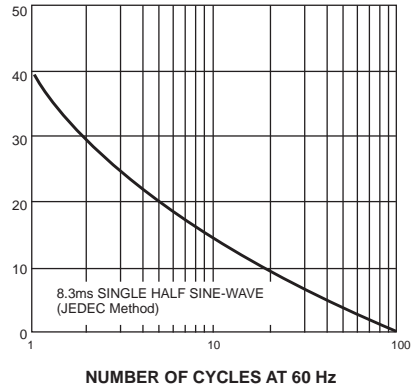
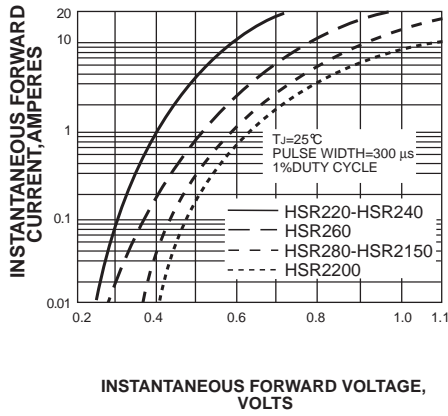


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

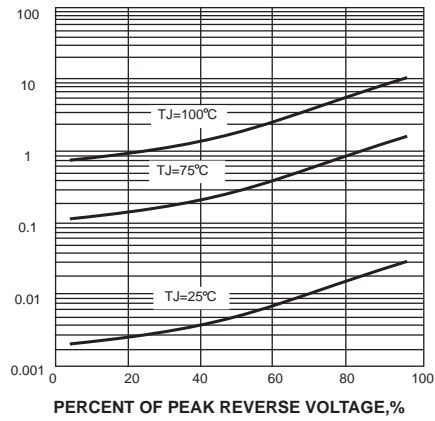
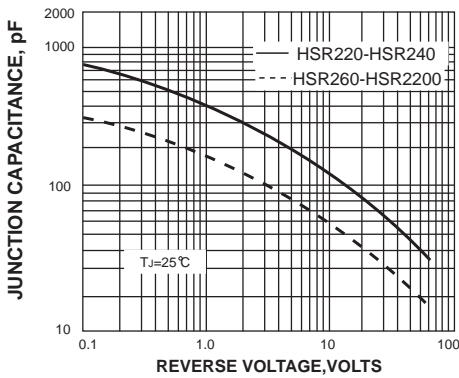
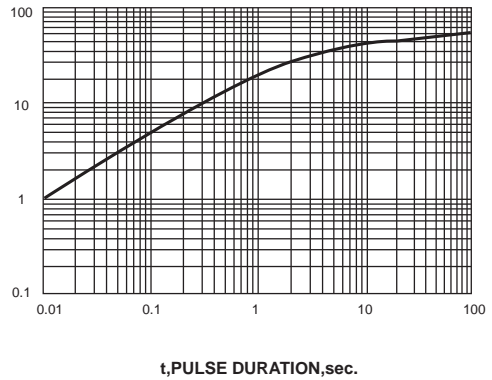


FIG. 5-TYPICAL JUNCTION CAPACITANCE



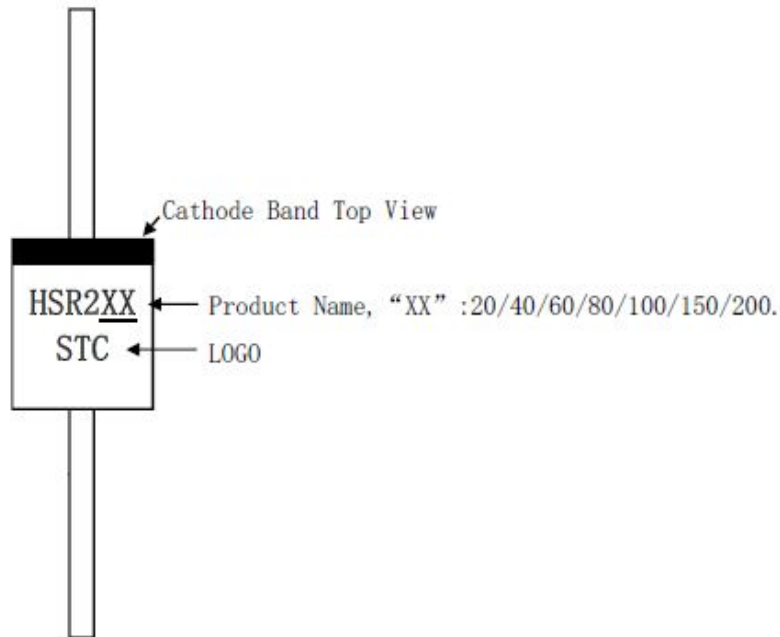
TRANSIENT THERMAL IMPEDANCE, °C/W

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.