

Schottky Barrier Rectifier

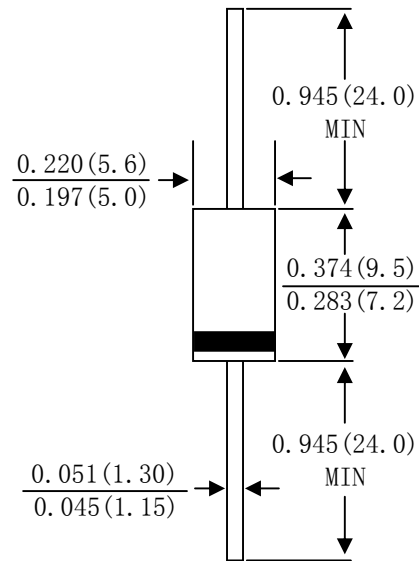
Features

- 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 320 | HSR 340 | HSR 360 | HSR 380 | HSR 3100 | HSR 3150 | HSR 3200 | 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) | $I_{(AV)}$ | 3.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 80.0 | | | | | | | A |
| Maximum instantaneous forward voltage at 3.0A | 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 | 250.0 | | 160.0 | | | | | pF |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ | 40.0 | | | | | | | °C/W |
| Operating junction temperature range | T_j | -55 to +150 | | | | | | | °C |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | °C |

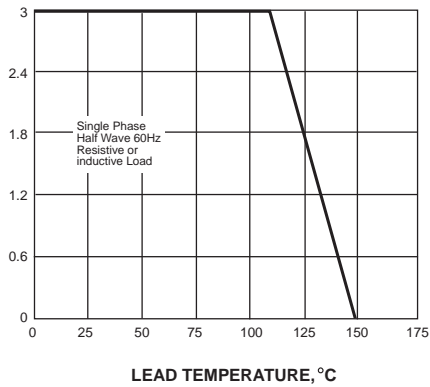
Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

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 HSR320 THRU HSR3200

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

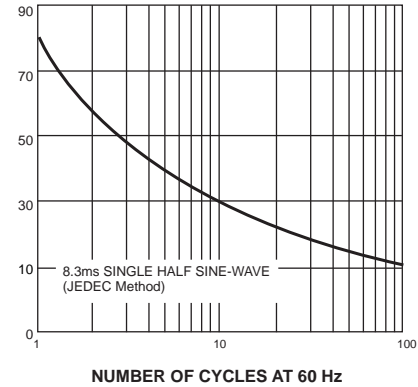
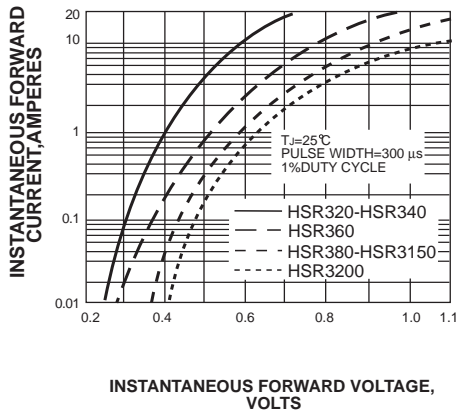


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

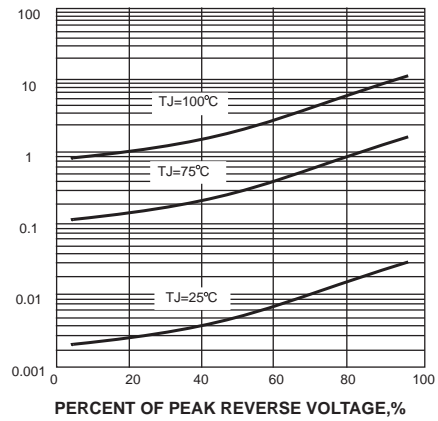
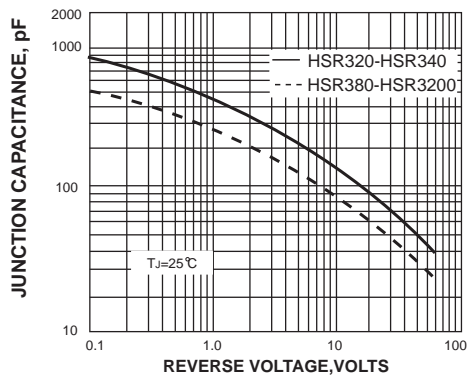
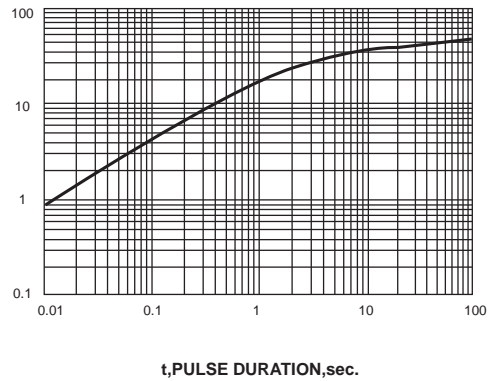


FIG. 5-TYPICAL JUNCTION CAPACITANCE

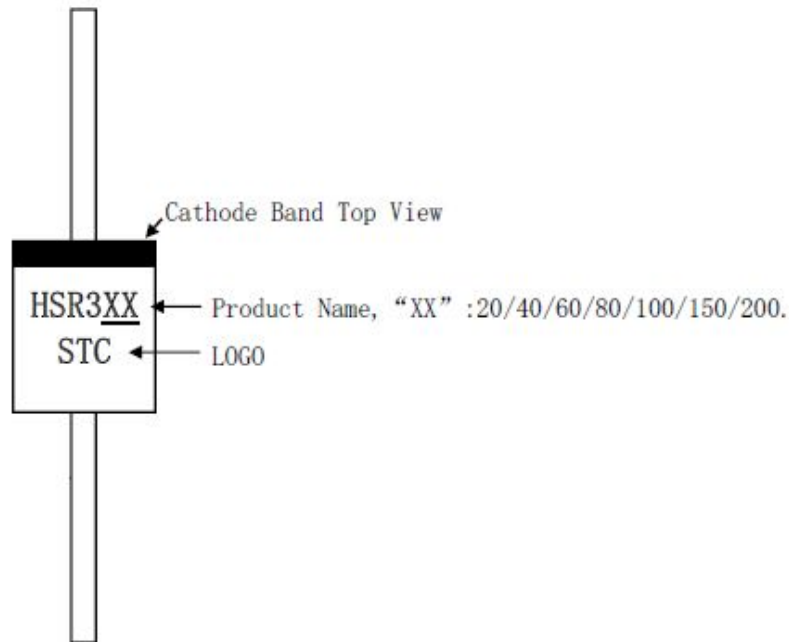


TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PRINTING INSTRUCTIONS



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