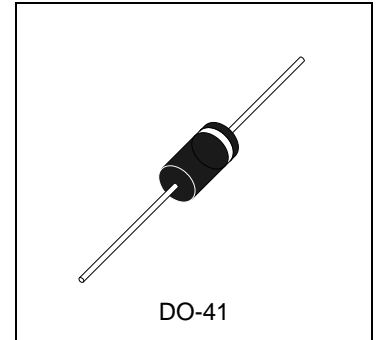




# HSR120 thru HSR1100

Schottky Barrier Rectifiers  
(Reverse Voltage 20 to 100V, Forward Current 1A)



## Features

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

## Mechanical Data

- Cases: DO-41 molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10seconds/.375"(9.5mm) lead lengths at 5lbs.,(2.3kg) tension
- Weight: 0.35gram

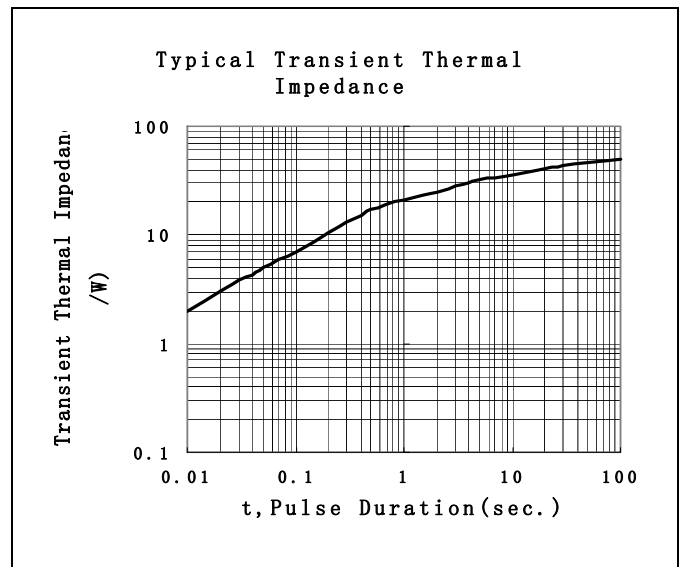
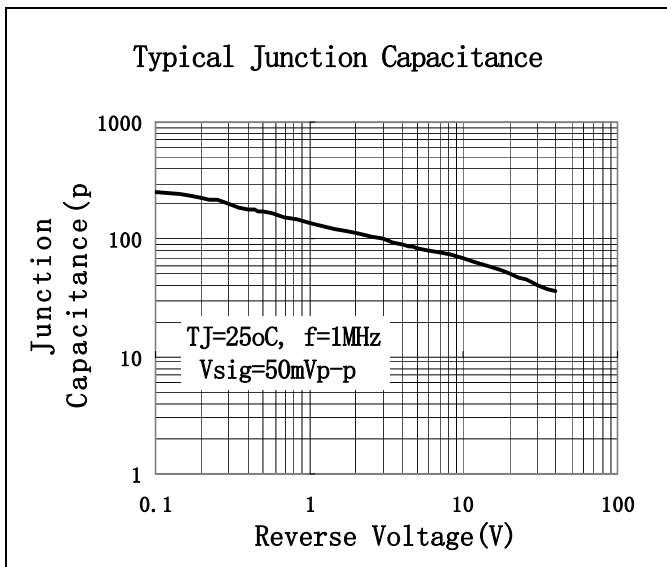
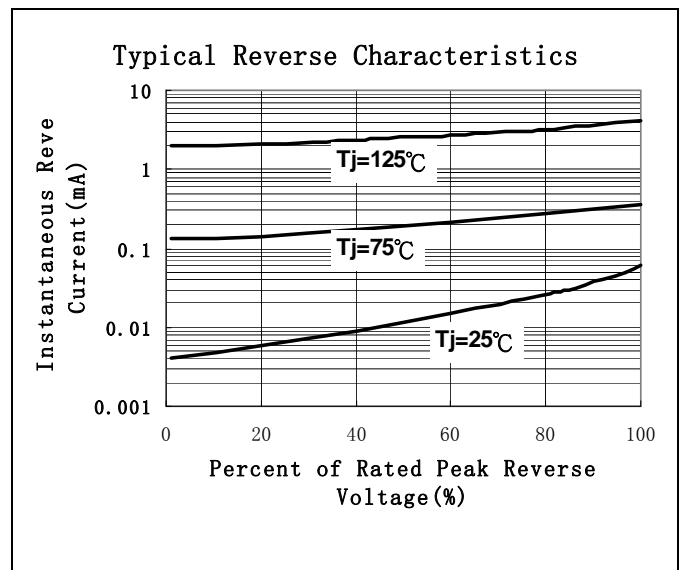
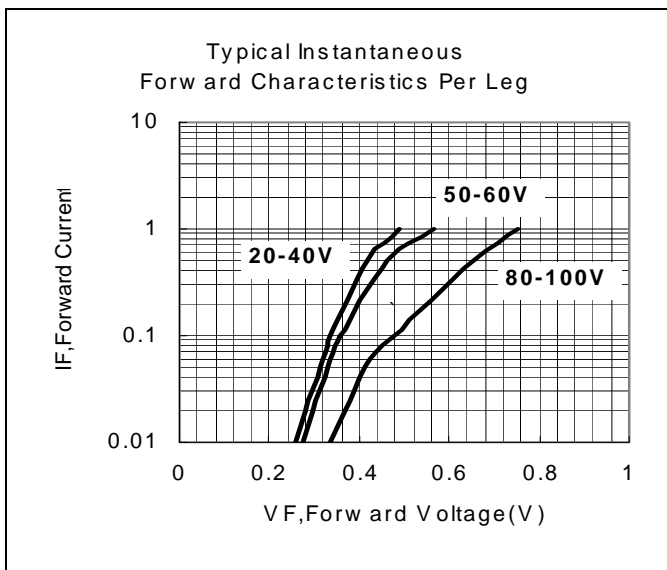
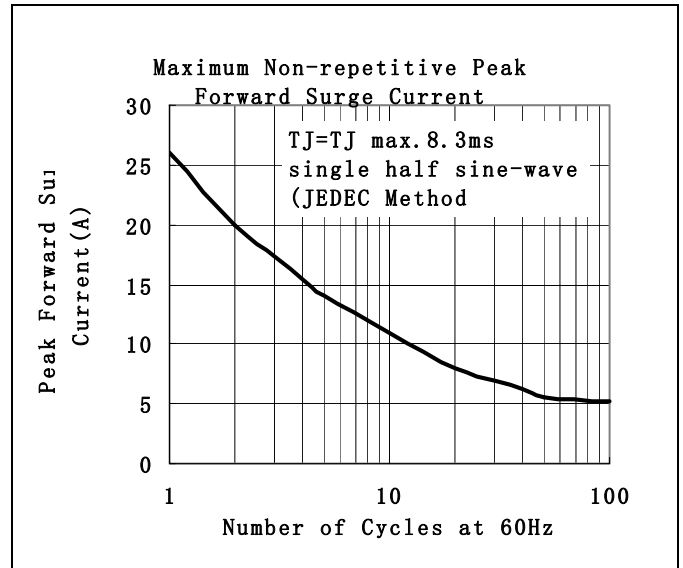
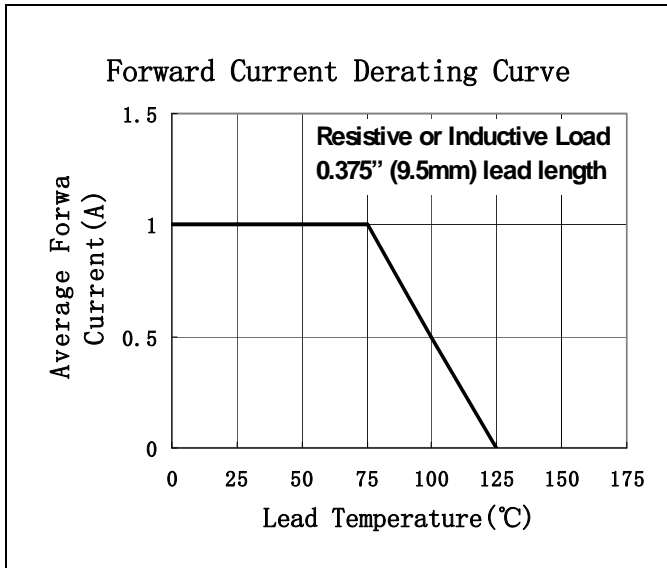
## Maximum Ratings & Electrical Characteristics

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%.

Ratings	Symbol	HSR 120	HSR 130	HSR 140	HSR 150	HSR 160	HSR 180	HSR 1100	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Surge Peak Reverse Voltage	$V_{RSM}$	14	21	28	35	42	57	71	V
DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Average Forward Rectified Current ( $T_A=75^\circ\text{C}$ )	$I_{FAV}$	1							A
Peak Forward Surge Current, 50Hz Half Sine-wave ( $T_A=25^\circ\text{C}$ )	$I_{FSM}$	40							A
Repetitive Peak Forward C ( $f>15\text{Hz}$ )	$I_{FRM}$	12							A
Instantaneous Forward Voltage	$V_F$	0.48	0.52	0.65			0.8	V	
Leakage Current ( $T_J=25^\circ\text{C}$ , $V_R=V_{RRM}$ )	$I_R$	0.1							mA
Leakage Current ( $T_J=100^\circ\text{C}$ , $V_R=V_{RRM}$ )		10							mA
Typical Junction Capacitance	$C_J$	170							pF
Rating for Fusing, $t<10\text{ms}$ ( $T_A=25^\circ\text{C}$ )	$i^2t$	12.5							$\text{A}^2\text{s}$
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	30							$^\circ\text{C/W}$
Thermal Resistance Junction to Lead	$R_{\theta JL}$	15							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-65 to +125							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^\circ\text{C}$
ESD Protection Voltage	$V_{ESD}$	12							KV



### Characteristics Curve





### DO-41 Dimension

2-Lead DO-41 Molded Plastic Package  
HSMC Package Code: L

**Marking:**

Pb Free Mark  
Pb-Free: \* ● (None)  
Normal: None

Control Code

Date Code

HSR 1

Product Series  
20,30,40,50,60,80,100

Marking around the surface of cylinder

Note:  
Green label is used for pb-free packing

DIM	Min.	Max.
A	0.71	0.86
B	25.40	-
C	4.10	5.20
D	25.40	-
E	2.00	2.70

Unit: mm

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