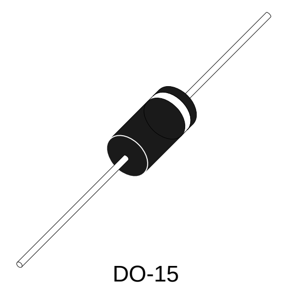
HSB320 thru HSB3100

Schottky Barrier Rectifiers
(Reverse Voltage 20 to 100V, Forward Current 3A)



DO-15

Features

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

Mechanical Data

- Cases: DO-15 molded plastic body
- 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: 0.4gram

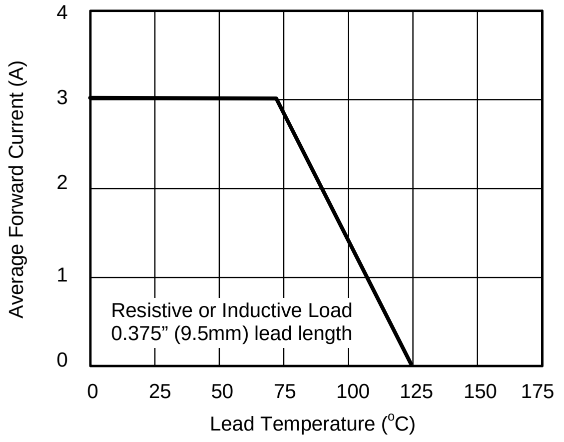
Maximum Ratings & Electrical Characteristics

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%.

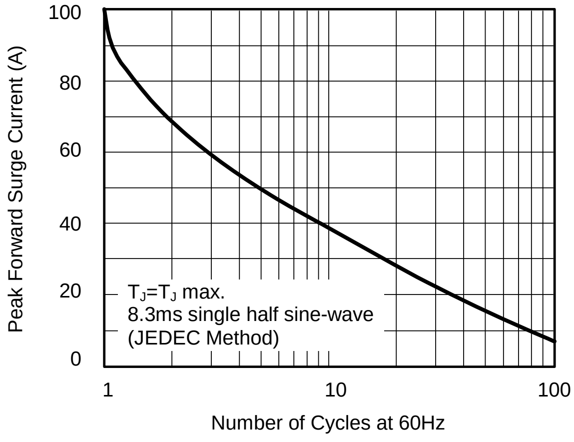
Ratings	Symbol	HSR 320	HSR 330	HSR 340	HSR 350	HSR 360	HSR 380	HSR 3100	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Surge Peak Reverse Voltage	V_{RSM}	14	21	28	35	42	57	71	V
DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Average Forward Rectified Current (T_A=75°C)	I_{FAV}	3							A
Peak Forward Surge Current, 50Hz Half Sine-wave (T_A=25°C)	I_{FSM}	80							A
Repetitive Peak Forward C (f>15Hz)	I_{FRM}	12							A
Instantaneous Forward Voltage	V_F	0.48	0.52		0.7		0.8		V
Leakage Current (T_J=25°C, V_R=V_{RRM})	I_R	0.1							mA
Leakage Current (T_J=100°C, V_R=V_{RRM})		10							mA
Typical Junction Capacitance	C_J	170							pF
Rating for Fusing, t<10ms (T_A=25°C)	i^2t	12.5							A^2s
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	50							°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	15							°C/W
Operating Junction Temperature Range	T_J	-65 to +125							°C
Storage Temperature Range	T_{STG}	-65 to +150							°C
ESD Protection Voltage	V_{ESD}	<8							KV

Characteristics Curve

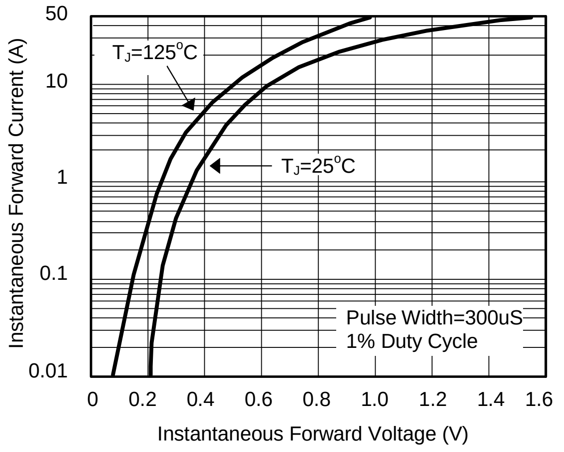
Forward Current Derating Curve



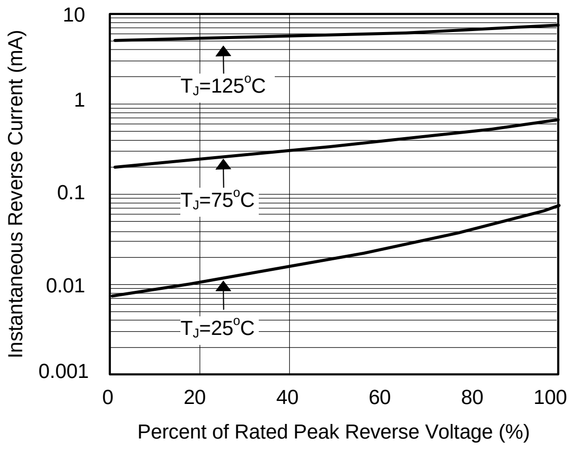
Maximum Non-repetitive Peak Forward Surge Current



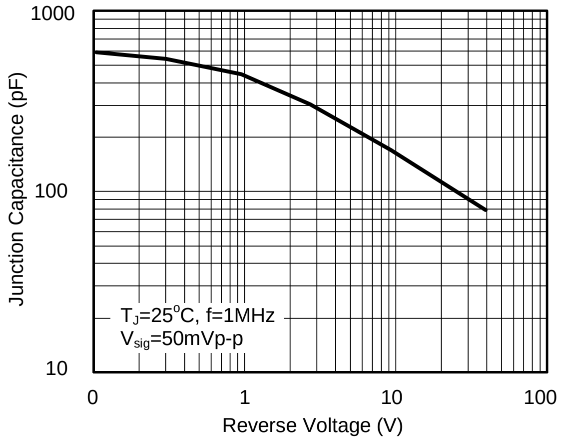
Typical Instantaneous Forward Characteristics



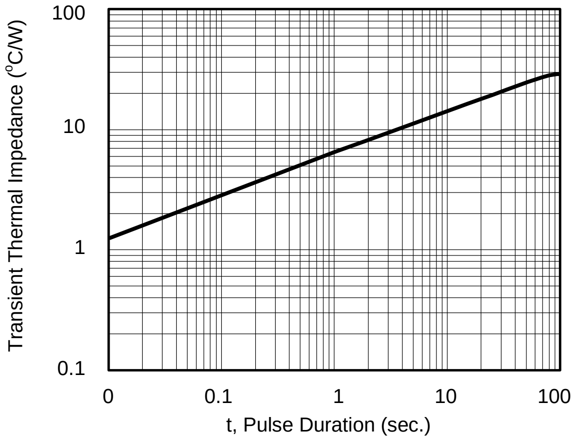
Typical Reverse Characteristics



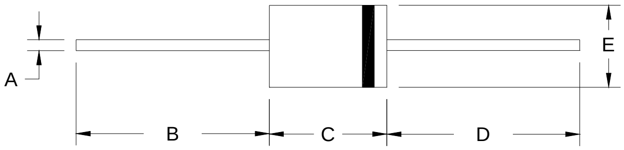
Typical Junction Capacitance



Typical Transient Thermal Impedance

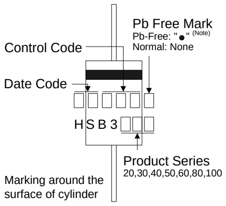


DO-15 Dimension



2-Lead DO-15 Molded Plastic Package
HSMC Package Code: L

Marking:



Note:
Green label is used for pb-free packing

DIM	Min.	Max.
A	0.70	0.90
B	25.40	-
C	5.80	7.60
D	25.40	-
E	2.60	3.60

Unit: mm

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Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
  Tel: 886-2-25212056 Fax: 886-2-25632712