SENSITRON
SEMICONDUCTOR

TECHNICAL DATA
DATA SHEET 872, REV. E
Formerly SHD1262 / P / N / D

HERMETIC POWER SCHOTTKY RECTIFIER

Applications:

• Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- **Low Reverse Leakage Current**
- **Soft Reverse Recovery at Low and High Temperature**
- **Low Forward Voltage Drop**
- **Low Power Loss, High Efficiency**
- **High Surge Capacity**
- **Guard Ring for Enhanced Durability and Long Term Reliability**
- **Guaranteed Reverse Avalanche Characteristics**

MAXIMUM RATINGS ALL RATINGS ARE AT T_A = 25 °C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE (PER LEG)	PIV	45	Volts
Max. Average Forward Current, 50% duty cycle, rectangular wave form (Single/Doubler)	$I_{F(AV)}$	15	Amps
Max. Average Forward Current, 50% duty cycle, rectangular wave form (Common Cathode/Common Anode) $I_{F(AV)}$	$I_{F(AV)}$	30	Amps
PEAK SINGLE CYCLE SURGE CURRENT t_p = 8.3 msec. (PER LEG)	I_{FSM}	150	Amps
MAXIMUM THERMAL RESISTANCE (Single)	$R_{\theta JC}$	2.82	°C/W
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	T_{op}, T_{stg}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP Per Leg I_F = 15A, T_A = 25 ^{0}C I_F = 15A,T_A = 125 ^{0}C	V_f	0.78 0.71	Volts
MAXIMUM REVERSE CURRENT I_r @ PIV (PER LEG) T_A = 25 ^{0}C T_A = 125 ^{0}C	I_r	2 20	mA mA
JUNCTION CAPACITANCE V_R = 5Vdc, f = 1mHz V_{SIG} = 50mV (p-p) (Max) (PER LEG)	C_J	800	pF

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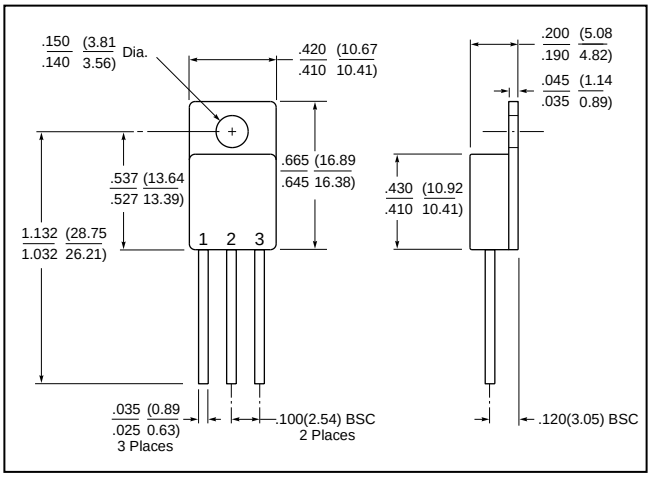
Mechanical Dimensions: In Inches / mm



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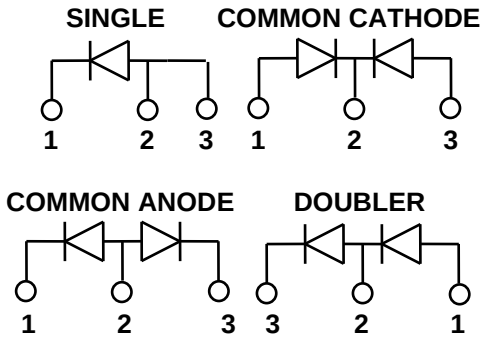
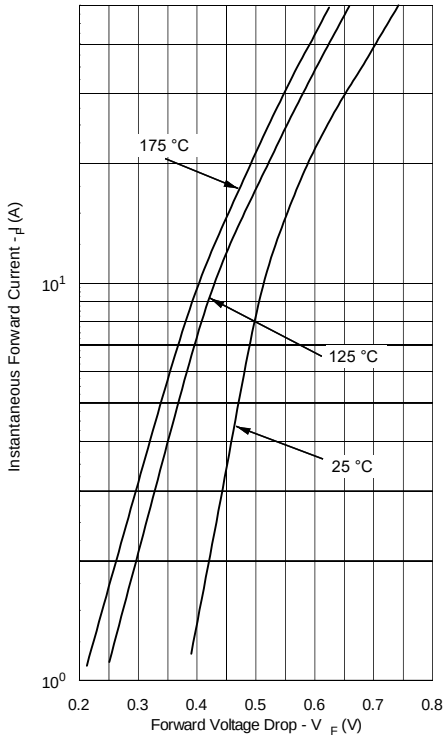


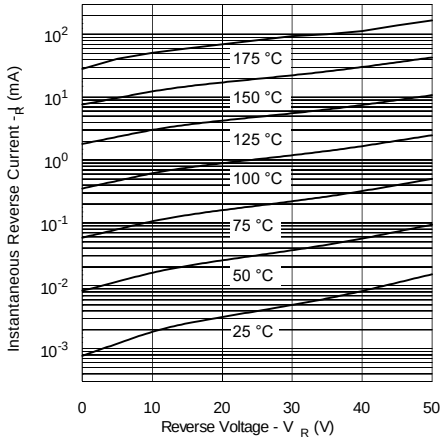
PINOUT TABLE

TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
DUAL RECTIFIER, COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
DUAL RECTIFIER, COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DUAL RECTIFIER, DOUBLER (D)	ANODE	ANODE/CATHODE	CATHODE

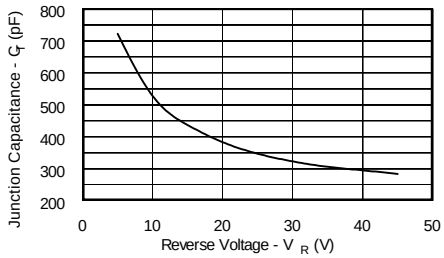
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



(Curves are for bare die only. SD125SB45A)

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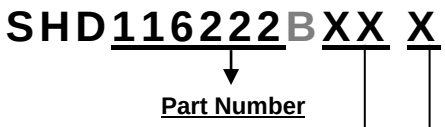
DATA SHEET 872, REV.E

PART ORDERING INFORMATION:



Screening Level (blank is no screening):

Suffix	Screened in Accordance with:
blank	No screening level
S	MIL-PRF-19500, TXV Level
SS	MIL-PRF-19500, S Level

QCI (blank is no QCI):

Suffix	Inspection in Accordance with:
blank	No QCI
Q	MIL-PRF-19500 QCI