

TECHNICAL DATA
DATA SHEET 653, REV. G

HERMETIC POWER SCHOTTKY RECTIFIER

Ultra Low Reverse Leakage

200°C Operating Temperature

Applications:

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

Features:

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very 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
- Out Performs 100 Volt Ultrafast Rectifiers
- Add Prefix C to SHD – For Ceramic Seals (SHDC)
- Add Suffix SS For JANS Screening

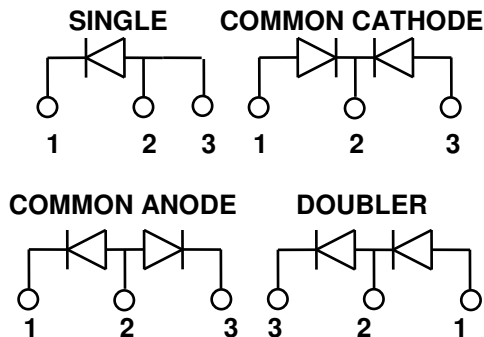
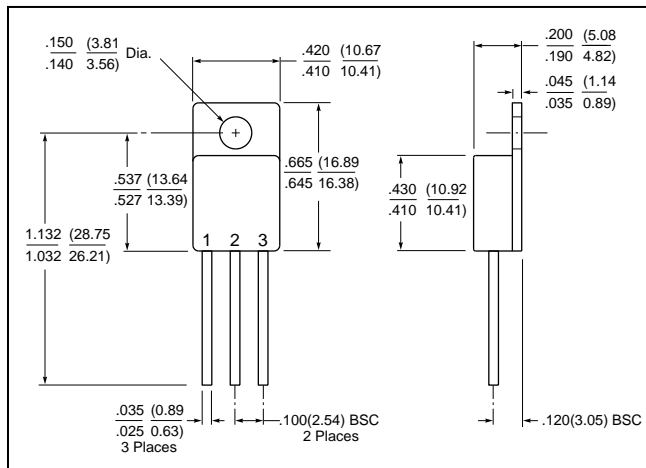
Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Single & Doubler)	15	A
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Common Anode & Common Cathode)	16	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave (per leg)	75	A
Max. Thermal Resistance	$R_{\theta JC}$	(per leg)	2.82	°C/W
Max. Junction Temperature	T_J	-	-65 to +200	°C
Max. Storage Temperature	T_{stg}	-	-65 to +165	°C

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 15A, Pulse, $T_J = 25\text{ °C}$ (per leg)	0.93	V
	V_{F2}	@ 15A, Pulse, $T_J = 125\text{ °C}$ (per leg)	0.84	V
Max. Reverse Current	I_{R1}	@ $V_R = 100V$, Pulse, $T_J = 25\text{ °C}$ (per leg)	0.1	mA
	I_{R2}	@ $V_R = 100V$, Pulse, $T_J = 125\text{ °C}$ (per leg)	3.0	mA
Max. Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$, $V_{SIG} = 50mV$ (p-p) (per leg)	500	pF

Mechanical Dimensions: In Inches / mm



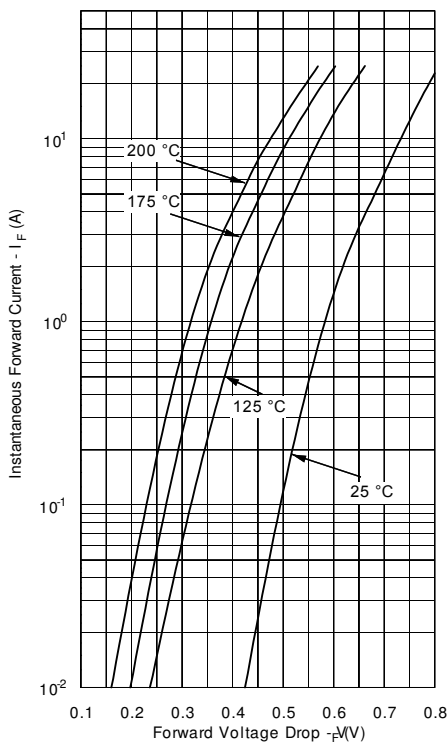
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PINOUT TABLE

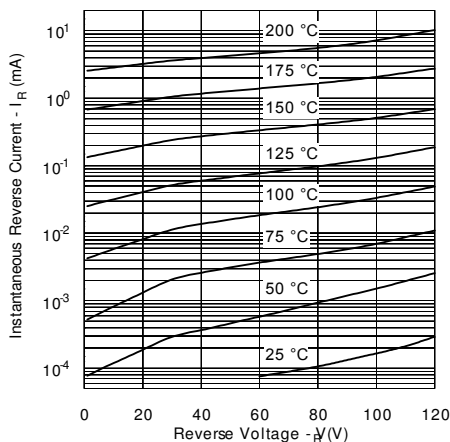
TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
DUAL RECTIFIER, COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
DUAL RECTIFIER, COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DUAL RECTIFIER, DOUBLER (D)	ANODE	ANODE/CATHODE	CATHODE

Note: The V_f curves shown are for the SD125SCU100 unpackaged die only.

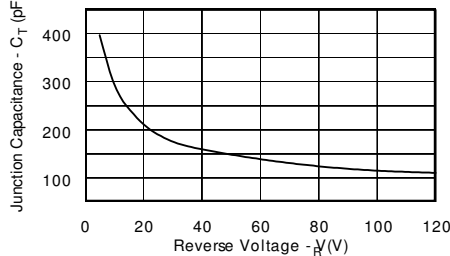
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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