

TECHNICAL DATA  
DATASHEET 4728, REV. C.1

## HERMETIC POWER SCHOTTKY RECTIFIER

### Applications:

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

### Features:

- Low Reverse Leakage Current
- 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 150 Volt Ultrafast Rectifiers

### Part Ordering Information:

- Ceramic Seal Option – For ceramic seals, use part number prefix SHDC
- JANTXV Equivalent Screening Option- Add suffix “S”
- JANS Equivalent Screening Option- Add suffix “SS”
- SHD125445P - Catalog Equivalent to 35CGQ150

### MAXIMUM RATINGS

ALL RATINGS ARE @  $T_C = 25\text{ }^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	150	Volts
MAXIMUM DC OUTPUT CURRENT (@ $T_C=100\text{ }^\circ\text{C}$ ) (Single, Doubler)	$I_O$	30	Amps
MAXIMUM DC OUTPUT CURRENT (@ $T_C=100\text{ }^\circ\text{C}$ ) (Common Cathode, Common Anode)	$I_O$	35	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	400	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	1000	pF
MAXIMUM THERMAL RESISTANCE (Per leg)	$R_{\theta JC}$	1.25	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top/Tstg	-55 to + 150	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Top/Tstg	-55 to + 150	$^\circ\text{C}$

SENSITRON

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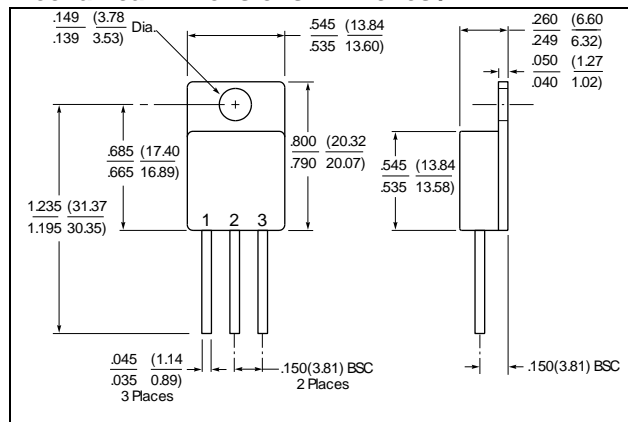
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 17.5$ Amps) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$ $T_J = -55\text{ }^\circ\text{C}$	$V_F$	0.93 0.80 1.05	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 35$ Amps) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$ $T_J = -55\text{ }^\circ\text{C}$	$V_F$	1.05 0.98 1.15	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 150$ V PIV) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_r$	0.1 15	mA

**SENSITRON**

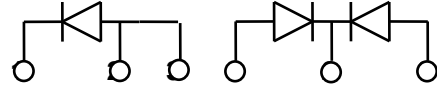
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**Mechanical Dimensions: In inches / mm**



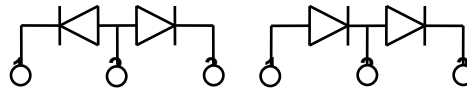
**SINGLE**

**COMMON CATHODE**



**COMMON ANODE**

**DOUBLER**



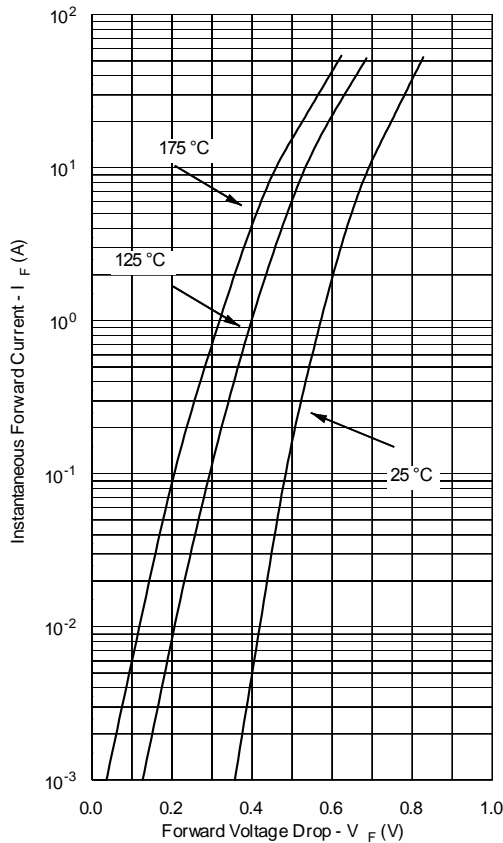
**TO-254**

**PINOUT TABLE**

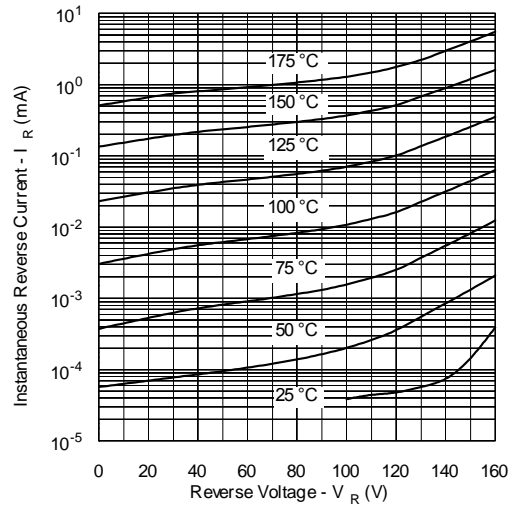
TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
DUAL RECTIFIER, COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
DUAL RECTIFIER, COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DUAL RECTIFIER, DOUBLER (D)	ANODE	CATHODE/ ANODE	CATHODE

Curves shown are for bare die only.

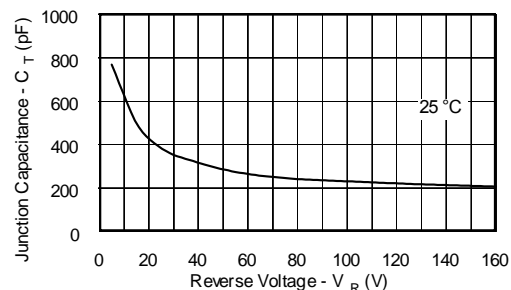
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



**SENSITRON**

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