

TECHNICAL DATA  
DATA SHEET 4789, REV. C**SILICON SCHOTTKY RECTIFIER**  
**150°C Operating Temperature****Applications:**

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

**Features:**

- Low Reverse Leakage Current
- 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”
- SHDC126445 - Catalog Equivalent to 16YQ150C

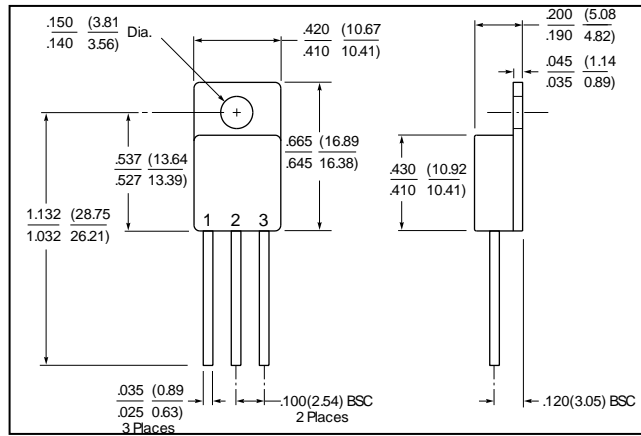
**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	150	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	16	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	250	A
Max. Junction Temperature	$T_J$	-	-55 to +150	°C
Max. Storage Temperature	$T_{stg}$	-	-55 to +150	°C
Thermal Resistance (per leg)	$R_{\theta JC}$	-	1.0	°C/W

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 16A, Pulse, $T_J = 25\text{ °C}$	1.05	V
	$V_{F2}$	@ 32A, Pulse, $T_J = 25\text{ °C}$	1.35	V
	$V_{F3}$	@ 16A, Pulse, $T_J = 125\text{ °C}$	0.86	V
	$V_{F4}$	@ 32A, Pulse, $T_J = 125\text{ °C}$	1.16	V
	$V_{F5}$	@ 16A, Pulse, $T_J = -55\text{ °C}$	1.10	V
	$V_{F6}$	@ 32A, Pulse, $T_J = -55\text{ °C}$	1.46	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 150V$ , Pulse, $T_J = 25\text{ °C}$	1	mA
	$I_{R2}$	@ $V_R = 150V$ , Pulse, $T_J = 125\text{ °C}$	16	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5V$ , $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$ , $V_{SIG} = 50mV$ (p-p)	1000	pF

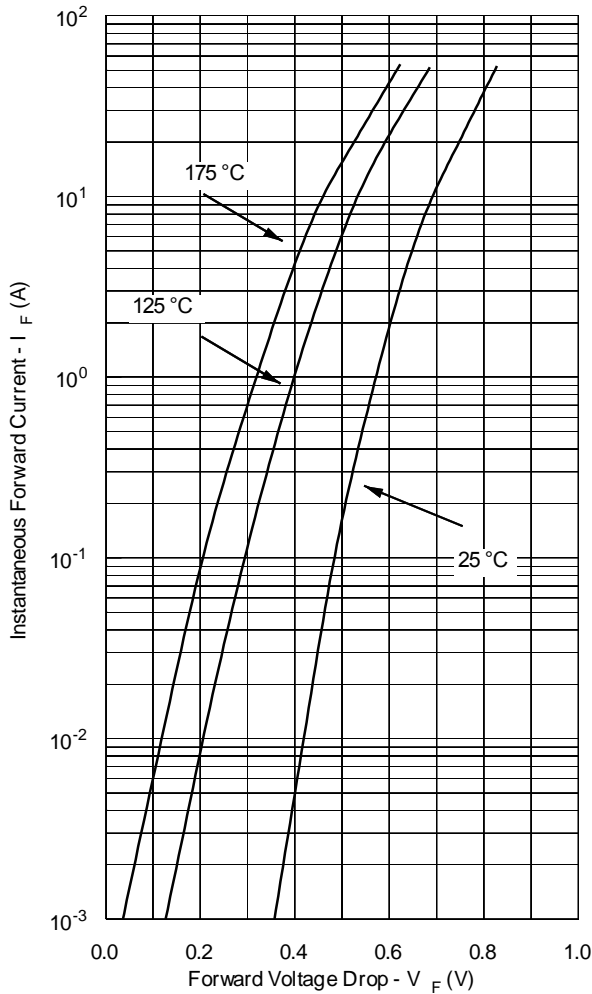
Mechanical Dimensions: In Inches / mm



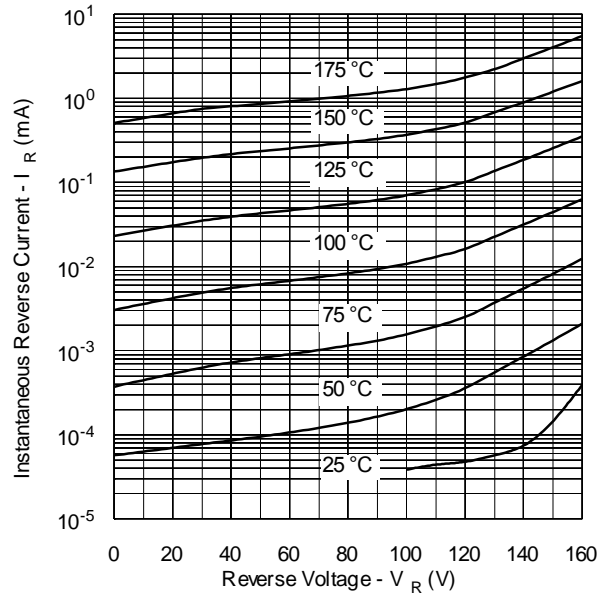
**TO-257**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE

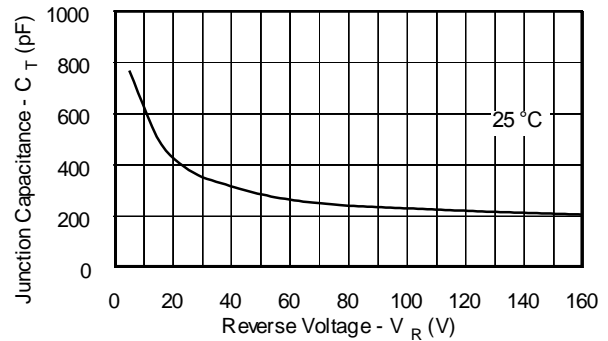
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



SENSITRON

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## PART ORDERING INFORMATION:

**SHDC126445 XX X**

↓  
Part Number

**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
blank	No QCI
Q	MIL-PRF-19500 QCI

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