SENSITRON
SEMICONDUCTOR

SHD126168
SHD126168D
SHD126168N
SHD126168P

TECHNICAL DATA
DATA SHEET 4779, REV. B

SILICON SCHOTTKY RECTIFIER
Ultra Low Reverse Leakage
175°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**

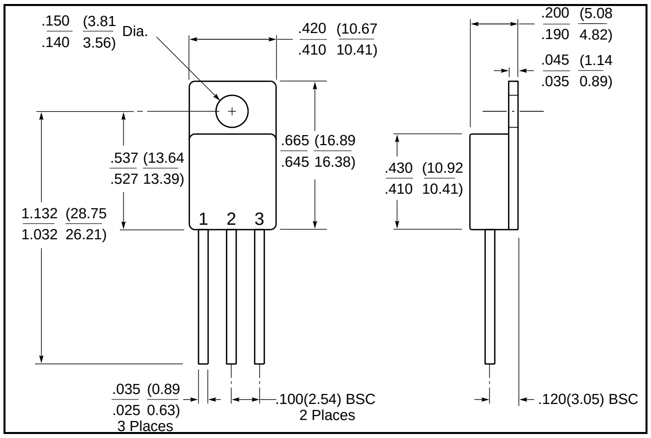
Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	15	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Single/Doubler)	7.5	A
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Common Cathode/Common Anode)	15	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave	75	A
Max. Junction Temperature	T_J	-	-65 to +175	°C
Max. Storage Temperature	T_{stg}	-	-65 to +175	°C
Thermal Resistance(per leg)	$R_{\theta JC}$	-	5.37	°C/W

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 7.5A, Pulse, T_J = 25 °C	0.46	V
	V_{F2}	@ 7.5A, Pulse, T_J = 125 °C	0.42	V
Max. Reverse Current	I_{R1}	@V_R = 15V, Pulse, T_J = 25 °C	3.5	mA
	I_{R2}	@V_R = 15V, Pulse, T_J = 125 °C	170	mA
Max. Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz, V_{SIG} = 50mV (p-p)	600	pF

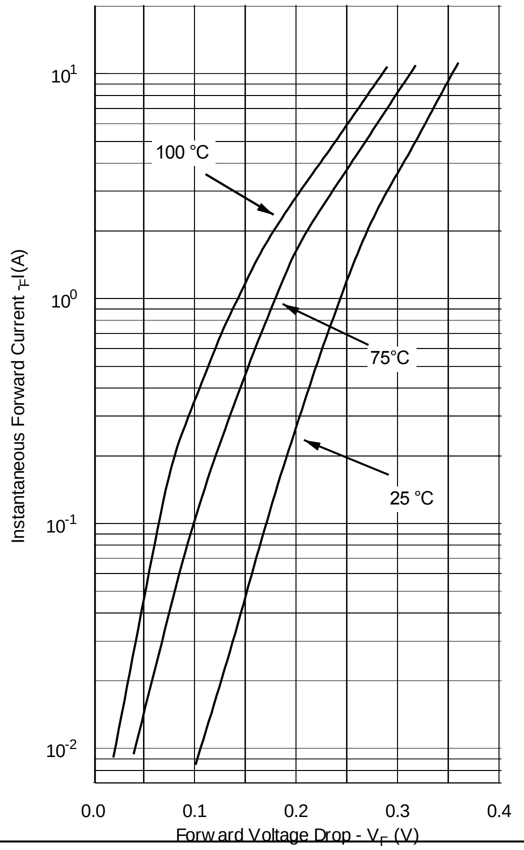
Mechanical Dimensions: In Inches / mm



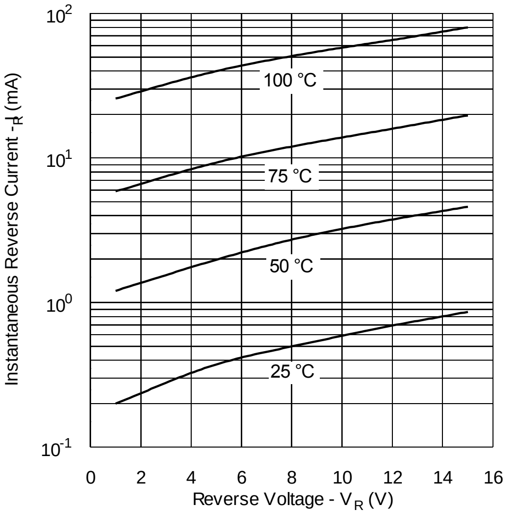
TO-257

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

Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance