TECHNICAL DATA, PROVISIONAL DATA ONLY
DATA SHEET 4079, Rev. B

HERMETIC SILICON CARBIDE RECTIFIER

FEATURES:

- NO RECOVERY TIME OR REVERSE RECOVERY LOSSES
- NO TEMPERATURE INFLUENCE ON SWITCHING BEHAVIOR
- **High Temperature Option** - Maximum operation & storage temperature can be increased to 250°C; use part number prefix as SHDT
- **High Frequency Option** - Non-magnetic Glidcop leads are available for improved performance at high frequency; use part number prefix SHDG

DESCRIPTION: A 1200-VOLT, 10 AMP POWER SILICON CARBIDE RECTIFIER IN A CERAMIC HERMETIC TO-257 PACKAGE

MAXIMUM RATINGS ALL RATINGS ARE @ T_C = 25 °C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	1200	Volts
MAXIMUM DC OUTPUT CURRENT (With T_C = 65 °C, for part numbers with P and N suffixes)	I_O	10	Amps
MAXIMUM DC OUTPUT CURRENT (With T_C = 65 °C, for part number with D suffix or without suffix)	I_O	5	Amps
MAXIMUM REPETITIVE FORWARD SURGE CURRENT (t = 8.3ms, Sine) per leg, T_C = 25 °C	I_{FRM}	30	Amps
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT (t = 10μs, pulse) per leg, T_C = 25 °C	I_{FSM}	100	Amps
MAXIMUM JUNCTION CAPACITANCE (V_r =5V) per leg	C_T	450	pF
MAXIMUM POWER DISSIPATION, T_C = 25 °C	P_d	30	W
MAXIMUM THERMAL RESISTANCE, Junction to Case (PER DUAL PACKAGE For Common Cathode/Anode Configurations)	$R_{\theta JC}$	1.50	°C/W
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top, Tstg	-55 to +175	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC			TYP	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed (I_f = 5 A PER LEG)					
	T_J = 25 °C	V_f	1.65	1.80	Volts
	T_J = 150 °C		2.55	3.00	
MAXIMUM REVERSE CURRENT (I_r @ 1200V PIV PER LEG)					
	T_J = 25 °C	I_r	0.05	0.20	mA
	T_J = 150 °C		0.10	1.00	

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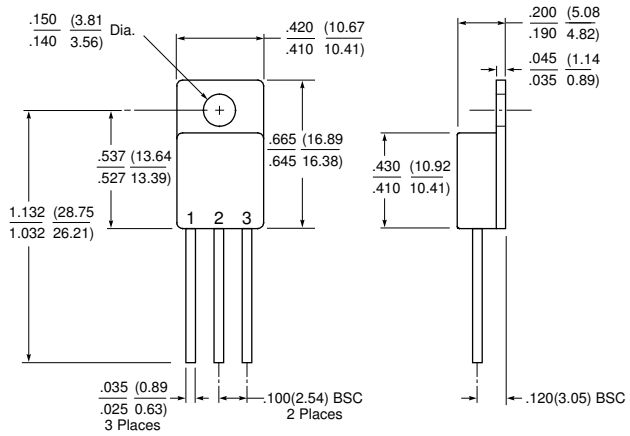
MECHANICAL DIMENSIONS

TO-257



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

SCHEMATIC