

TECHNICAL DATA
DATA SHEET 4145, REV.A

HERMETIC POWER ULTRAFAST RECTIFIER

DESCRIPTION: A 1200-VOLT, 20 AMP, 50 NSEC ULTRAFAST RECTIFIER IN TO-257 PACKAGE

MAXIMUM RATINGS

All ratings are @ $T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified

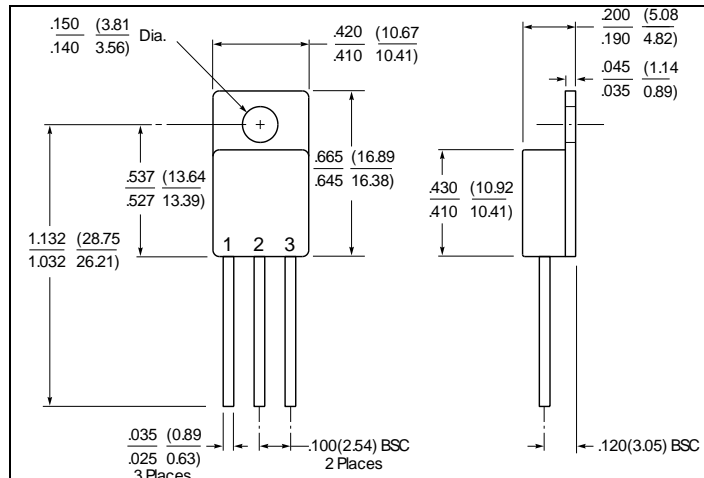
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE PER LEG	PIV	1200	Volts
MAX DC OUTPUT CURRENT ($T_C=100\text{ }^\circ\text{C}$) COMMON CATHODE / ANODE DOUBLER	I_o	20 10	Amps
MAXIMUM SURGE CURRENT ($T_C=25\text{ }^\circ\text{C}$, $T=8.3\text{ MSEC}$) PER LEG	I_{FSM}	80	Amps
REVERSE RECOVERY TIME ($I_f = 1\text{ A}$, $dI/dt = 50\text{ A}/\mu\text{sec}$, $V_R = 30\text{ V}$, $T_C=25\text{ }^\circ\text{C}$)	t_{rr} (typ) t_{rr} (max)	50 70	nsec nsec
MAXIMUM THERMAL RESISTANCE COMMON CATHODE / ANODE DOUBLER	$R_{\theta JC}$	1.9 3.8	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-55 to + 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed, PER LEG ($I_f = 12\text{ Amps}$) $T_C = 25\text{ }^\circ\text{C}$	V_f	2.60	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed, PER LEG ($I_f = 12\text{ Amps}$) $T_C = 100\text{ }^\circ\text{C}$	V_f	2.45	Volts
MAXIMUM REVERSE CURRENT PER LEG $T_C = 25\text{ }^\circ\text{C}$ I_r @ 1000V PIV	I_r	200	μA
MAXIMUM REVERSE CURRENT PER LEG $T_C = 100\text{ }^\circ\text{C}$ I_r @ 1000V PIV	I_r	3	mA

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MECHANICAL DIMENSIONS: In Inches / mm



TO-257

PINOUT TABLE

DEVICE 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 1	ANODE/ CATHODE	CATHODE 2

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