

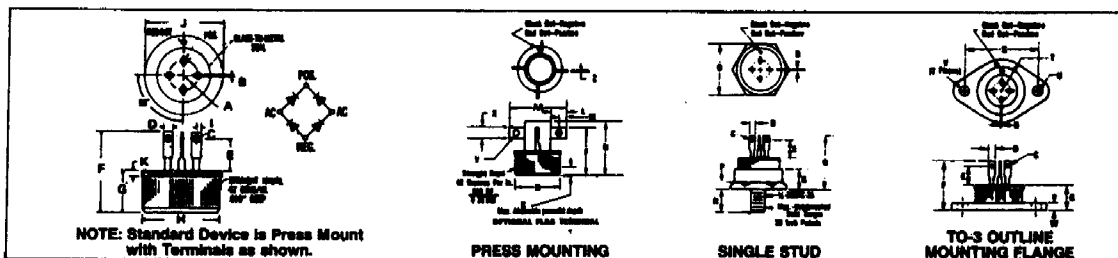
## 10 Amp Silicon Avalanche Integrated Full Wave Bridge Rectifiers

Controlled Avalanche Junctions with 250V, 450V,  
and 650V, Minimum Avalanche Ratings

10 Amps DC Forward Current at  $T_C = 100^\circ\text{C}$

100 Amps Peak One Half Cycle Surge Current

2000 Volts DC Minimum Circuit-To-Case Insulation



LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS
A	*.130R	3,30	H	*.7505-.7545	19,06-19,16	O	.875	22,23	V	.151-.161 Dia.	3,83-4,08
B	*.018-.028 Typ.	0,46-0,71	I	*.060	1,52	P	.120	3,05	W	.135 Max.	3,42
C	*.070 Dia. Typ.	1,78	J	*.751-.756	19,06-19,20	Q	1.10	27,94	X	.187	4,75
D	*110-.130 Typ.	2,79-3,30	K	*.100 Max.	2,54	R	.34-.40	8,64-10,16	Y	.110 Dia.	2,79
E	*.290-.330	7,37-8,38	L	.26 Min.	6,35	S	1.177-1.197	29,89-30,40	Z	.032 Typ.	0,81
F	*.825 Max.	20,95	M	.125 Typ.	3,18	T	.525R Max.	13,33	AA	1.0 Max.	25,4
G	*.390-420	9,90-10,67	N	.930 Max.	23,62	U	.188R Max.	4,77			

Dimensional tolerance inches .XX<sup>±.02</sup>, .XXX<sup>±.005</sup>

MAXIMUM RATINGS<sup>(1)</sup> (60 Hz Resistive and Inductive Load)

RATINGS	SYMBOL	IN4436	IN4437	IN4438	UNITS
*DC Blocking Voltage	$V_{RM}$	200	400	600	Volts
Working Peak Reverse Voltage	$V_{RWM}$				
Peak Repetitive Reverse Voltage	$V_{RRM}$				
RMS Reverse Voltage	$V_{RMS}$	140	280	420	Volts
*Power Dissipation in $V_{RRM}$ Region for 100 $\mu$ sec Square Wave	$P_{RM}$		600		Watts
Continuous Power Dissipation in $V_{RRM}$ Region at $T_C = 50^\circ\text{C}$	$P_R$		4		Watts/Leg
*Peak Surge Current, 1/2 Cycle at 60 Hz, (Non-Rep) at $T_C = 100^\circ\text{C}$ (Fig. 2)	$I_{FSM}$		100		Amps
Peak Surge Current, 1 sec, at 60Hz and $T_C = 100^\circ\text{C}$ (Fig. 2)	$I_{FRM}$		30		Amps
*Avg. Forward Current at $T_C = 100^\circ\text{C}$ (Fig. 1)	$I_O$		10		Amps
*Junction Operating and Storage Temperature Range	$T_{JSTG}$		-65 to +160		$^\circ\text{C}$

NOTE: All measurements taken at  $T_C = 25^\circ\text{C}$  unless otherwise specified. Case Temperature,  $T_C$ , is measured on the bottom of the case within 0.125 inch of center.

ELECTRICAL CHARACTERISTICS (At  $T_C = 25^\circ\text{C}$  unless otherwise specified)

CHARACTERISTICS	SYMBOL	IN4436	IN4437	IN4438	UNITS
Minimum Avalanche Voltage	$V_{BR}$	250	450	650	Volts
Maximum Avalanche Voltage	$V_{BR1}$	700	900	1100	Volts
*Maximum Instantaneous Forward Voltage Drop at 10 Amps and $T_C = 100^\circ\text{C}$ (Fig. 3)	$V_{FM}$		1.2		Volts/Leg
Maximum Reverse Current at Rated $V_{RM}$ and $T_C = 150^\circ\text{C}$	$I_{RM}$		2.0		mA
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$		1.5		$^\circ\text{C}/\text{W}$
Insulation Strength, Circuit to Case, Min.			2000		Volts DC

\*ASTERISK DENOTES JEDEC REGISTERED INFORMATION.



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