

5R8/3D THRU 15R8/3D

100 AMP

EPION II HIGH SPEED RECTIFIER

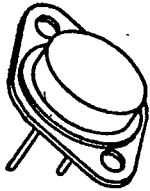
50-150 VOLTS

T-03-21
SSDII

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CASE STYLE R

TO-3 WITH .060 PINS



FEATURES

- RADIATION TOLERANT
- ULTRA FAST RECOVERY 75 NSEC MAX
- REVERSE VOLTAGE TO 150 VOLTS
- LOW FORWARD VOLTAGE DROP 450 MV AVERAGE
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION
- 200°C OPERATING, GOLD EUTECTIC DIE ATTACH, ULTRASONIC ALUMINUM WIRE BONDS

MAXIMUM RATINGS

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	5R8/3D	$V_{RM} (rep)$		Volts
	7R8/3D	V_R	50	
	10R8/3D		70	
	12R8/3D		100	
	15R8/3D		125	
RMS Reverse Voltage	5R8/3D	V_r		Volts
	7R8/3D		35	
	10R8/3D		50	
	12R8/3D		70	
	15R8/3D		90	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_C = 55^\circ C$)		I_0	100	Amps
Peak Repetitive Forward Current ($T_C = 55^\circ C$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)		$I_{FM} (rep)$	400	Amps
Peak Surge Current ($T_C = 55^\circ C$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)		$I_{FM} (surge)$	1000	Amps
Operating and Storage Temperature		T_J, T_{stg}	-65 to +200	$^\circ C$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.5	$^\circ C/W$

ELECTRICAL CHARACTERISTICS

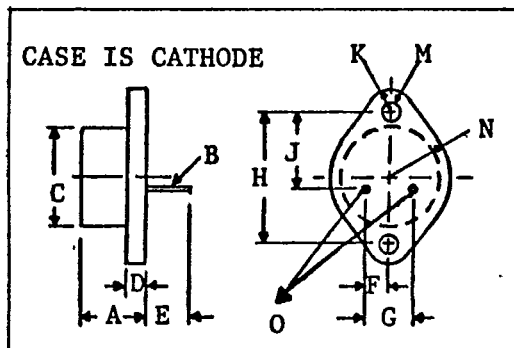
Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (I_0 (Max), 60 Hz. Square Wave, $T_C = 55^\circ\text{C}$)	$V_{F(AV)}$.45	Vdc
Max Instantaneous Forward Drop ($I_F = 100$ Adc, $T_C = 25^\circ\text{C}$, 300 μs Pulse)	V_F	.9	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated V_R , 60Hz, Square Wave, $T_C = 100^\circ\text{C}$)	$I_{R(AV)}$	5.0 *	μA dc
Max Reverse Leakage Current (Rated V_R , $T_C = 25^\circ\text{C}$)	I_R	500 *	μA dc
Max Junction Capacitance ($V_R = 10$ V, $T_C = 25^\circ\text{C}$)	C_J	350	pf

REVERSE RECOVERY CHARACTERISTICS

*LOWER LEAKAGE DEVICES AVAILABLE FROM FACTORY

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$)	t_{rr}	--	60	75	ns

PHYSICAL DIMENSIONS



KEY TO DIMENSIONS:

- (Inches)
- A = .250 - .450
 - B = .057 - .062
 - C = .875 MAX.
 - D = .135 MAX.
 - E = .312 MIN.
 - F = .205 - .225
 - G = .420 - .440
 - H = 1.177 - 1.197
 - J = .655 - .675
 - K = .188 MAX.
 - M = .151 - .161
 - N = .525 MAX.
 - O = ANODE

TYPICAL OPERATING CURVES

