



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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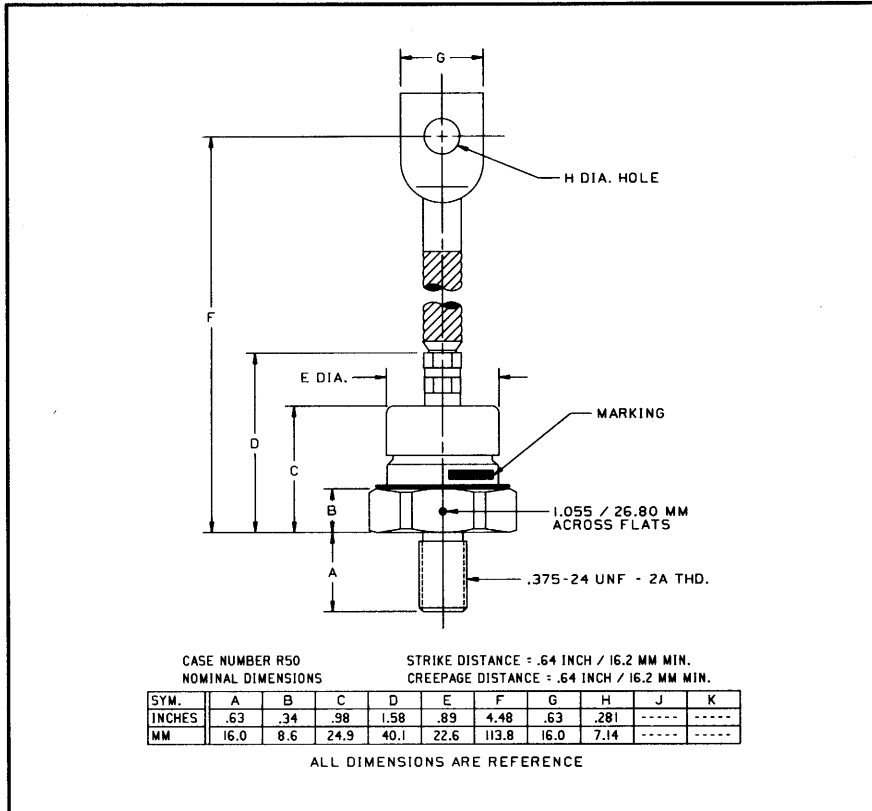
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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (412) 925-7272
 Powerex, Europe, S.A. 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

Silicon Rectifier
 100 Amperes Average
 1600 Volts



A170 (R)
Silicon Rectifier
 100 Amperes Average, 1600 Volts

A170 (R) (Outline Drawing)

Ordering Information:

Select the complete five or six digit part number you desire from the table, i.e. A170PM is a 1600 Volt, 100 Ampere Silicon Rectifier.

Type	Voltage		Current
	V_{RRM}	Code	$I_T(av)$
A170	200	B	100
	400	D	
	600	M	
	800	N	
	1000	P	
	1200	PB	
	1400	PD	
	1600	PM	

Features:

- 1600V V_{RRM}
- Hermetic Seal

Applications:

- Transportation Equipment
- DC Motor Control
- DC Power Supplies



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A170 (R)
Silicon Rectifier
 100 Amperes Average, 1600 Volts

Absolute Maximum Ratings

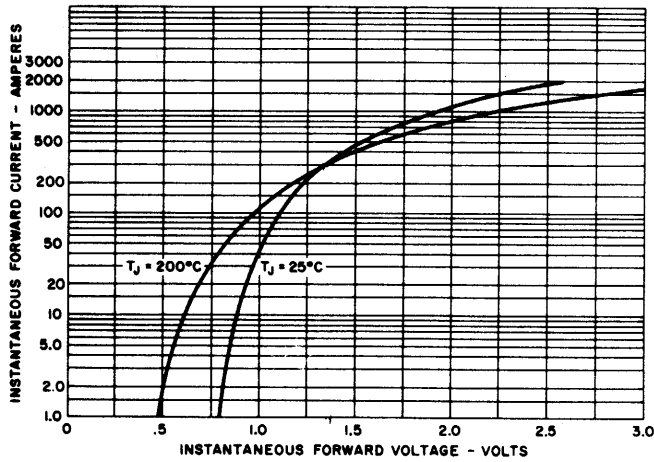
Characteristics	Symbol	A170 (R)	Units
RMS Forward Current	$I_{F(rms)}$	157	Amperes
Average Forward Current	$I_{F(av)}$	100	Amperes
One Cycle Surge Current	I_{FSM}	2500	Amperes
I^2t (for Fusing), Times ≥ 1.0 milliseconds	I^2t	15500	A^2sec
Storage Temperature	T_{stg}	-40 to +200	$^{\circ}C$
Operating Temperature	T_j	-40 to +200	$^{\circ}C$
Mounting Torque (Lubricated)		90 to 100	in-lb
		10.1 to 11.3	N-m

Electrical and Thermal Characteristics

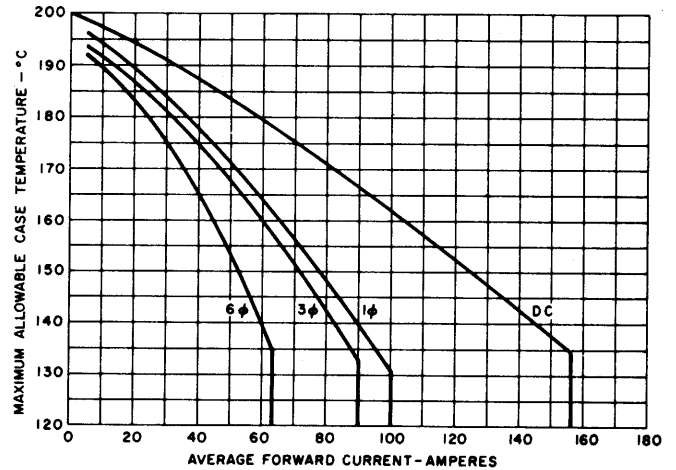
Characteristics	Symbol	Test Conditions	A170 (R)	Units
Current - Conducting State Maximums				
Forward Voltage Drop	V_{FM}	$T_C = 130^{\circ}C$, $I_{F(av)} = 100A, 314A$ Peak	1.3	Volts
Voltage - Blocking State Maximums				
Repetitive Peak Reverse Voltage (Rated Limit)	V_{RRM}		1600	Volts
Non-rep. Trans. Peak Rev. Voltage (Rated Limit)	V_{RSM}	$V \leq 5.0msec$	1800	Volts
Reverse Leakage Current, mA peak	I_{RRM}	T_j at max., $V_{RRM} = \text{Rated}$	20	mA
Thermal				
Maximum Resistance, Junction to Case	$R_{\theta(j-c)}$		0.4	$^{\circ}C/Watt$
1 ϕ and 3 ϕ (50 to 400 Hz)			0.55	$^{\circ}C/Watt$
6 ϕ (50 to 400 Hz)			0.72	$^{\circ}C/Watt$

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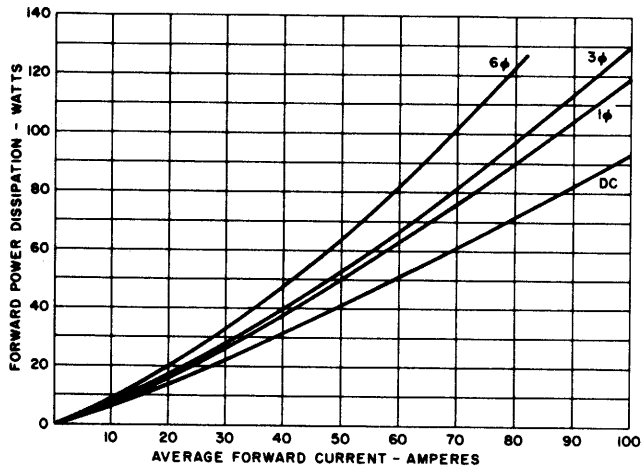
A170 (R)
Silicon Rectifier
 100 Amperes Average, 1600 Volts



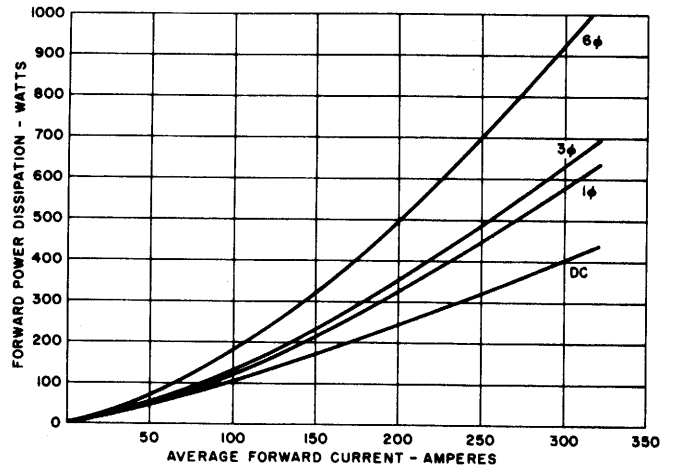
MAXIMUM FORWARD CHARACTERISTICS



MAXIMUM CASE TEMPERATURE VS. AVERAGE FORWARD CURRENT



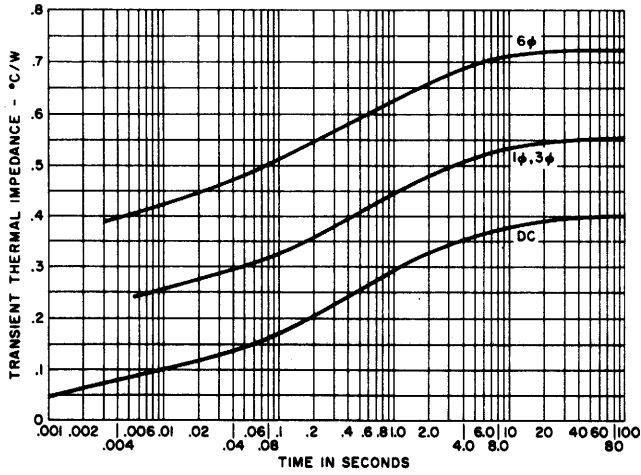
AVERAGE FORWARD POWER DISSIPATION VS. AVERAGE FORWARD CURRENT



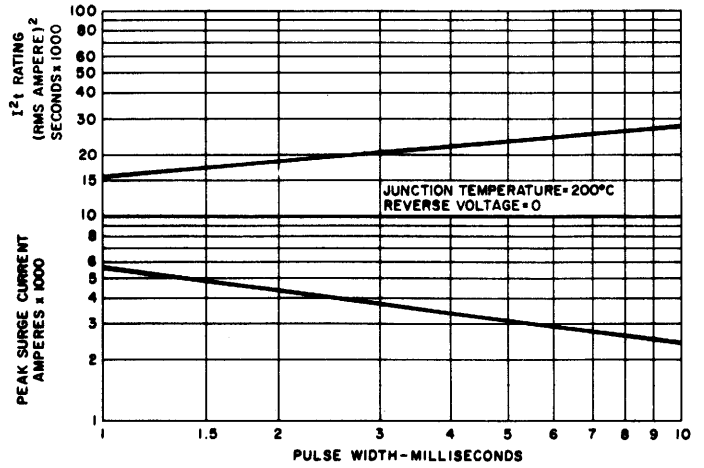
AVERAGE FORWARD POWER DISSIPATION VS. AVERAGE FORWARD CURRENT, HIGH LEVEL

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A170 (R)
 Silicon Rectifier
 100 Amperes Average, 1600 Volts



TRANSIENT THERMAL IMPEDANCE —
 JUNCTION-TO-CASE



SUB-CYCLE SURGE FORWARD CURRENT
 AND I²t RATING VS. PULSE TIME
 FOLLOWING RATED LOAD CONDITIONS