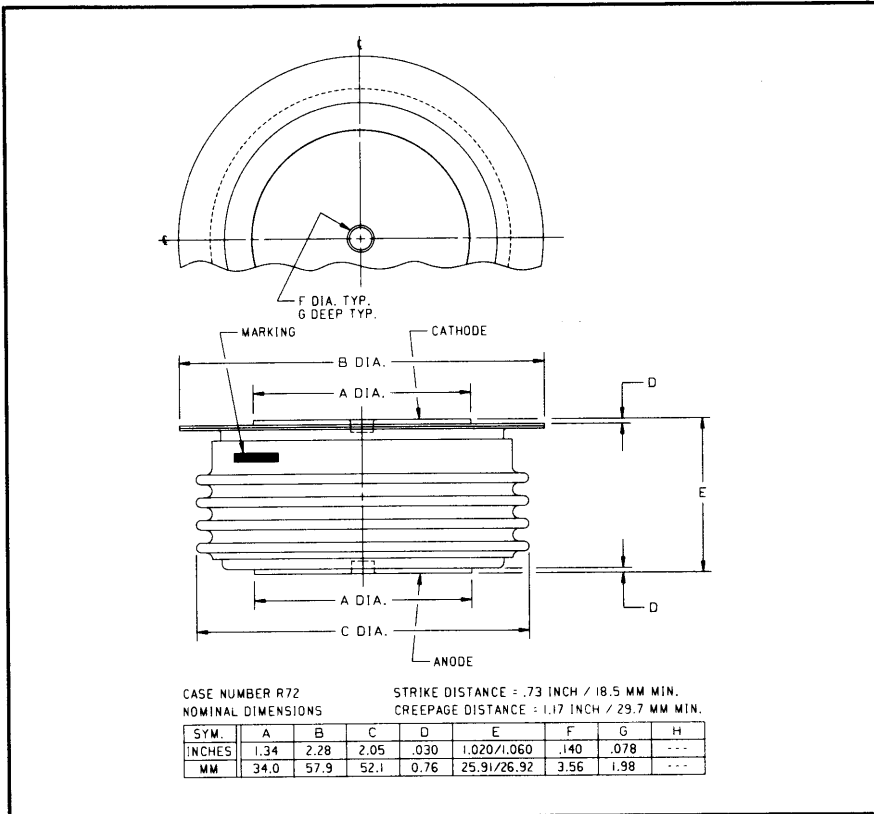
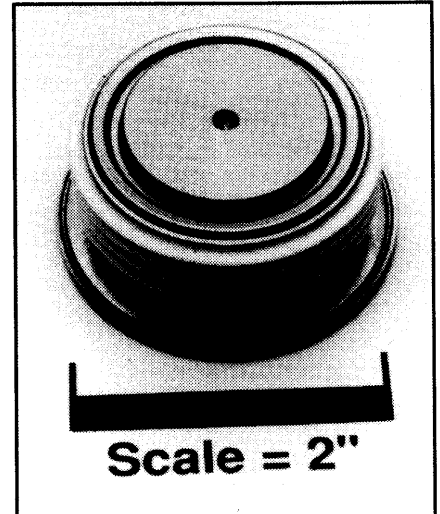


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 Powerex, Europe, S.A. 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

Fast Recovery Rectifier
650 Amperes Average
1600 Volts



R722__06 (Outline Drawing)



R722__06
 Fast Recovery Rectifier
 650 Amperes Average, 1600 Volts

Ordering Information:

Select the complete part number you desire from the following table:

Type	Voltage		Current		Recovery Time		Leads	
	V_{RRM} (Volts)	Code	$I_{F(av)}$ (A)	Code	t_{rr} (μ sec)	Code	Case	Code
R722	400	04	650	06	2.0	ES	R72	OO
	600	06						
	800	08						
	1000	10						
	1200	12						
	1400	14						
	1600	16						

Example: Type R722 rated at 650A average with $V_{RRM} = 1600V$,
 Recovery Time = 2.0 μ sec, order as:

Type	Voltage		Current		Time	Leads	
R	7	2	2	1	6	0	6
					ES	O	O

Features:

- Fast Recovery Times
- Soft Recovery Characteristics
- High Surge Current Ratings
- Special Selection of t_{rr} or Q_{rr} Available

Applications:

- Inverters
- Choppers
- Transmitters
- Free Wheeling Diode

R722_06

Fast Recovery Rectifier

650 Amperes Average, 1600 Volts

Absolute Maximum Ratings

Characteristics	Symbol	R722_06	Units
RMS Forward Current	$I_{F(rms)}$	1000	Amperes
Average Forward Current	$I_{F(av)}$	650	Amperes
One-half Cycle Surge Current	I_{FSM}	7500	Amperes
I^2t (for Fusing), Times = 8.3 milliseconds	I^2t	234000	A ² sec
Max. I^2t Package (for Times = 8.3 milliseconds)	I^2t	80×10^6	A ² sec
Storage Temperature	T_{stg}	-40 to +190	°C
Operating Temperature	T_j	-40 to +150	°C
Mounting Force		2000 to 2400	lbs

Electrical and Thermal Characteristics

Characteristics	Symbol	Test Conditions	R722_06	Units
Current - Conducting State Maximums				
Forward Voltage Drop	V_{FM}	$T_j = 25^\circ\text{C}, I_{FM} = 1500\text{A}$	2.05	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}	$t \leq 5.0\text{msec}$	1800	Volts
Reverse Leakage Current, mA peak	I_{RRM}	T_j at max., $V_{RRM} = \text{Rated}$	50	mA
Switching				
Maximum Reverse Recovery Time	t_{rr}	$I_{FM} = 1500\text{A}, t_p = 190\mu\text{sec},$ $di_R/dt = 25\text{A}/\mu\text{sec}, T_C = 25^\circ\text{C}$	2.0	μsec
Thermal				
Maximum Resistance, Junction to Case	$R_{\theta(j-c)}$		0.055	°C/Watt
Maximum Resistance, Case to Sink (Lubricated)	$R_{\theta(c-s)}$		0.020	°C/Watt