



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

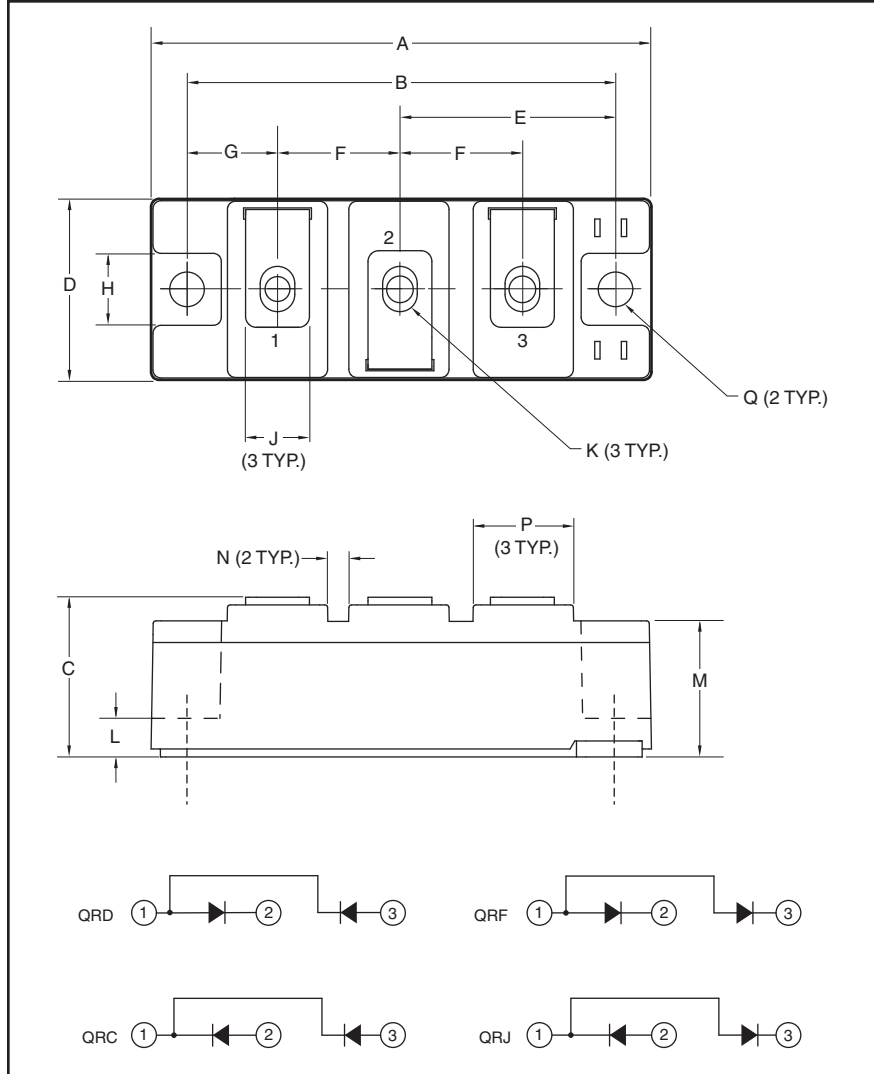
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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



Super Fast Recovery Diode Modules 210 Amperes/600 Volts



Outline Drawing and Circuit Diagram

Dimensions	Millimeters
A	94
B	80
C	30
D	34
E	40
F	23
G	17
H	13

Dimensions	Millimeters
J	12
K	M6
L	7.5
M	25.4
N	4
P	19
Q	6.5 Dia.



Description:

Powerex Super Fast Recovery Dual Diode Modules are designed for use in applications requiring fast switching. The modules are isolated for easy mounting with other components on common heatsinks.

Features:

- ☐ Super Fast Recovery Time
- ☐ RoHS Compliant
- ☐ Isolated Mounting
- ☐ Metal Baseplate
- ☐ Low Thermal Impedance
- ☐ 2500V Isolating Voltage

Applications:

- ☐ Free Wheeling
- ☐ Welding and Plasma Cutting Machine

QR_0630R30
Super Fast Recovery Dual Diode Modules
210 Amperes/600 Volts

Absolute Maximum Ratings, $T_j = 25^\circ\text{C}$ unless otherwise specified

Ratings	Symbol	QRD0630R30	Units
		QRC0630R30 QRF0630R30 QRJ0630R30	
Repetitive Peak Reverse Blocking Voltage	V_{RRM}	600	Volts
Non-Repetitive Peak Reverse Blocking Voltage	V_{RSM}	$V_{RRM} + 100$	Volts
DC Current, $T_C = 80^\circ\text{C}$ (Resistive Load)	$I_F(\text{DC})$	210	Amperes
Peak Half Cycle Non-repetitive Surge Current ($t = 8.3\text{ms}$, 100% V_{RRM} Reapplied)	I_{FSM}	TBD	Amperes
I^2t for Fusing for One Cycle ($t = 8.3\text{ms}$, 100% V_{RRM} Reapplied)	I^2t	TBD	A^2sec
Operating Junction Temperature	T_j	-40 to 150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to 150	$^\circ\text{C}$
Maximum Mounting Torque, M6 Mounting Screw	—	26	in-lb
Maximum Mounting Torque, M6 Terminal Screw	—	26	in-lb
Module Weight (Typical)	—	180	Grams
V Isolation (60 Hz, Circuit to Base, All Terminals Shorted, $t = 60\text{ sec}$)	V_{RMS}	2500	Volts

Electrical Characteristics, $T_j = 25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Reverse Leakage Current	I_{RRM}	Rated V_{RRM}	—	—	1.0	mA
On-State Voltage	V_{FM}	$I_F = 150\text{A}$	—	1.5	2.2	Volts
		$I_F = 210\text{A}$	—	1.8	2.5	Volts
Threshold Voltage	V_{TO}	$T_j = 125^\circ\text{C}$	—	1.68	—	Volts
Slope Resistance	r_T	$T_j = 125^\circ\text{C}$	—	3.50	—	$\text{m}\Omega$
Reverse Recovery Time	t_{rr}	$I_F = 150\text{A}$, $di/dt = \text{TBD}$	—	—	120	ns
Reverse Recovery Charge	Q_{rr}	$I_F = 150\text{A}$, $di/dt = \text{TBD}$	—	6.3	—	μC

Thermal and Mechanical Characteristics, $T_j = 25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal Resistance, Junction to Case*	$R_{th(j-c)}$ Q	Per Diode	—	—	0.137	$^\circ\text{C/W}$
Contact Thermal Resistance, Case to Sink (Lubricated)*	$R_{th(c-s)}$	Per Module	—	—	0.05	$^\circ\text{C/W}$

* T_C , T_F measured point is just under the chip.

QR_0630R30
Super Fast Recovery Dual Diode Modules
 210 Amperes/600 Volts

