crydom™

POWER COMPONENTS



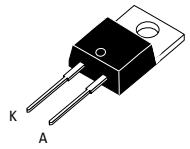
Applications

- *Input Rectification*
- *Low Frequency Freewheel*
- *Battery Isolation*

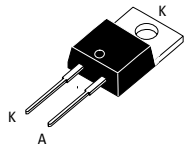
> ***Suitable for General Purpose Applications***
> ***Isolated and Non-Isolated Tab***
> ***V_R/V_{RRM} 400, 600, 800, 1200V***

CRNA/CRNB20

20Amp - 400/600/800/1200V - RECTIFIER



TO-220AB Isolated
(CRNA15)



TO-220AB Non-Isolated
(CRNB15)



Absolute Maximum Ratings

		CONDITIONS	SYMBOL	RATING
RMS On-State Current (full sine wave)	Tc = 95°C Tc = 80°C	TO-220AB TO-220AB Iso	$I_{F(RMS)}$	20A
Average On-State Current	Tc = 95°C Tc = 80°C	TO-220AB TO-220AB Iso	$I_{F(AV)}$	12.7A
Non Repetitive Surge Peak On-State Current (Full Cycle, Tj Initial = 25°C)		F =50 Hz F =60 Hz	I_{FSM}	255A 300A
I^2t Value for fusing		tp = 10 ms	I^2t	$374A^2s$
Storage Temperature Range			T_{stg}	-40 to +150°C
Operating Junction Temperature Range			T_j	-40 to +125°C
Isolation Voltage (CRNA Series only)			V_{ISO}	2500 V_{RMS}

Electrical Characteristics

V_{FM} @ 20A	Tj = 25°C	1.1V
I_{RM} @ V_R =V_{RRM}	Tj = 25°C	0.1mA
I_{RM} @ V_R =V_{RRM}	Tj = 125°C	1.0mA

Thermal Resistances

		SYMBOL	RATING
Junction to Case (AC)	TO-220AB	$R_{th(j-c)}$	1.8°C/W
Junction to Case (AC)	TO-220AB Isolated	$R_{th(j-c)}$	2.7°C/W
Junction to Ambient	TO-220AB	$R_{th(j-a)}$	60°C/W
Junction to Ambient	TO-220AB Isolated	$R_{th(j-a)}$	60°C/W

GENERAL NOTES

1. All parameters at 25 degrees C unless otherwise specified.

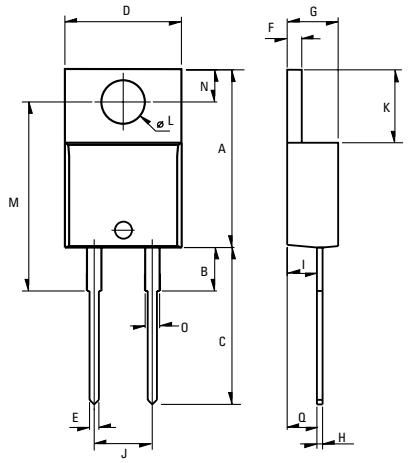
ISO9001 Certified

CRNA/CRNB20

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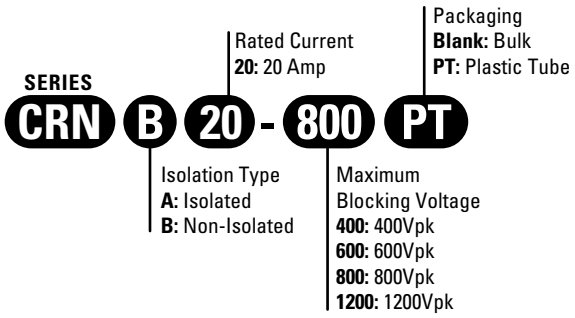
Dimensions

REF.	Millimeters Min.	Typ.	Max.	Inches Min.	Typ.	Max.
A	15.24		15.75	0.6		0.62
B		3.23			0.127	
C	12.78		13.79	0.503		0.543
D	9.96		10.36	0.392		0.408
E	0.69		0.94	0.027		0.037
F	1.22		1.32	0.048		0.052
G	4.62		4.83	0.182		0.19
H	0.46		0.61	0.018		0.024
I	2.49		2.84	0.098		0.112
J	2.39		2.69	0.094		0.106
K	6.48		6.88	0.255		0.271
L	3.78		3.89	0.149		0.153
M	15.49	16	16.51	0.61	0.63	0.65
N	2.59		2.9	0.102		0.114
O	0.99		1.55	0.039		0.061
Q		2.67			0.105	



Weight: 2.3g (0.08 oz)

Part Number Designation



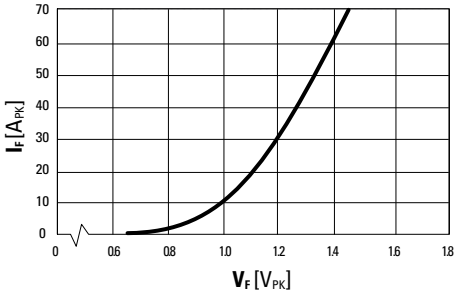


Fig. 1: On-state current versus on-state voltage (instantaneous values)

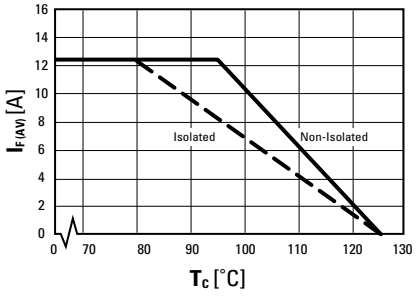


Fig. 2: Average on-state current versus case temperature

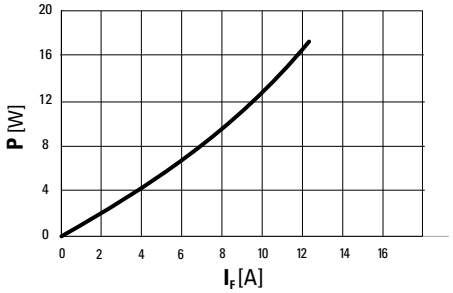


Fig. 3: Power dissipation versus average on-state current

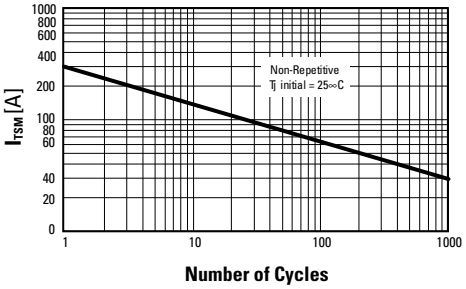


Fig. 4: Non-repetitive surge peak on-state current versus number of cycles.

ISO9001 Certified

Approvals

UL - Pending

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