

Rectifier Diode

Types W108CED180 to W108CED220

Development part number Wx587ED180-220

Absolute Maximum Ratings

	VOLTAGE RATINGS	MAXIMUM LIMITS	UNITS
V_{RRM}	Repetitive peak reverse voltage, (note 1)	2200-1800	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	2300-1900	V

	OTHER RATINGS	MAXIMUM LIMITS	UNITS
$I_{F(AV)M}$	Maximum average forward current, $T_{sink}=55^{\circ}C$, (note 2)	10815	A
$I_{F(AV)M}$	Maximum average forward current. $T_{sink}=100^{\circ}C$, (note 2)	8015	A
$I_{F(AV)M}$	Maximum average forward current. $T_{sink}=100^{\circ}C$, (note 3)	5010	A
$I_{F(RMS)M}$	Nominal RMS forward current, $T_{sink}=25^{\circ}C$, (note 2)	19495	A
$I_{F(d.c.)}$	D.C. forward current, $T_{sink}=25^{\circ}C$, (note 4)	17240	A
I_{FSM}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	94.5	kA
I_{FSM2}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	103.9	kA
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	44.7	kA ² s
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	54.0	kA ² s
$T_{j op}$	Operating temperature range	-40 to +175	$^{\circ}C$
T_{stg}	Storage temperature range	-55 to +175	$^{\circ}C$

Notes:-

- 1) De-rating factor of 0.13% per $^{\circ}C$ is applicable for T_j below $25^{\circ}C$.
- 2) Double side cooled, single phase; 50Hz, 180° half-sinewave.
- 3) Single side cooled, single phase; 50Hz, 180° half-sinewave.
- 4) Double side cooled.
- 5) Half-sinewave, $175^{\circ}C$ T_j initial.

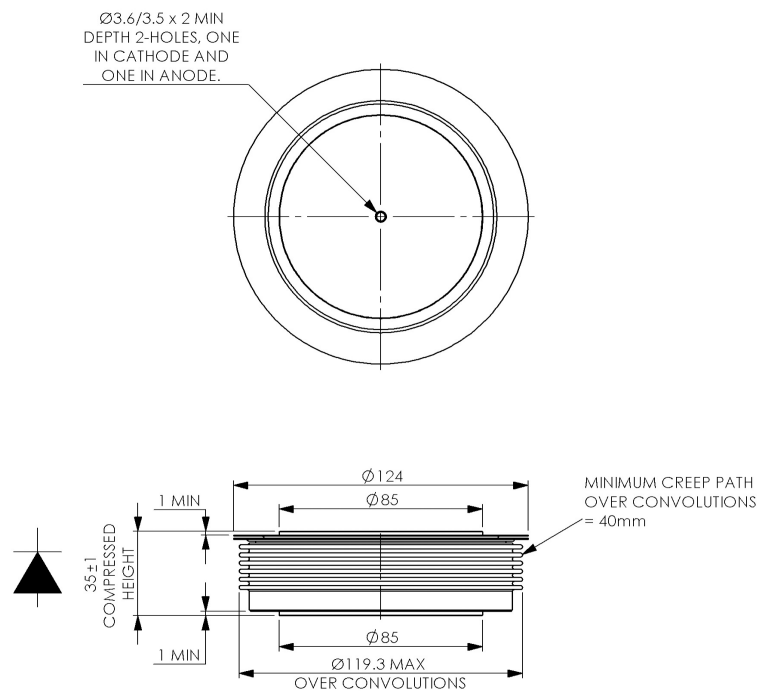
Characteristics

	PARAMETER	MIN.	TYP.	MAX.	TEST CONDITIONS (Note 1)	UNITS
V _{FM}	Maximum peak forward voltage	-	-	0.99	I _{FM} =6200A	V
V _{T0}	Threshold voltage	-	-	0.726		V
r _T	Slope resistance	-	-	0.042		mΩ
I _{RRM}	Peak reverse current	-	-	150	Rated V _{RRM}	mA
Q _{rr}	Recovered charge	-	6500	7050	I _{TM} =2500A, t _p =2000μs, di/dt=10A/μs, V _r =100V	μC
Q _{ra}	Recovered charge, 50% Chord	-	5600	-		μC
I _{rm}	Reverse recovery current	-	320	-		A
t _{rr}	Reverse recovery time, 50% chord	-	35	-		μs
R _{thJK}	Thermal resistance, junction to heatsink	-	-	0.006	Double side cooled	K/W
		-	-	0.012	Single side cooled	K/W
I _{CNR}	Case non-rupture current	-	30	-		MA ² s
F	Mounting force	76	-	93	Note 2	kN
W _t	Weight		2.2			kg

Notes:-

- 1) Unless otherwise indicated T_j=175°C.
- 2) For other clamp forces, please consult factory.

Outline Drawing & Ordering Information



ORDERING INFORMATION

(Please quote 10 digit code as below)

W108C	ED	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{RRM}/100$ 18 and 22	Fixed code

Order code: W108CED220 – 2200V V_{RRM} , 35mm clamp height capsule.

IXYS Semiconductor GmbH

Edisonstraße 15
D-68623 Lampertheim
Tel: +49 6206 503-0
Fax: +49 6206 503-627
E-mail: marcom@ixys.de



IXYS Corporation

1590 Buckeye Drive
Milpitas CA 95035 7418 USA
Tel: +1 (408) 547 9000
Fax: +1 (408) 496 0670
E-mail: sales@ixys.net

www.ixysuk.com
www.ixys.com

IXYS UK Westcode Ltd

Langley Park Way, Langley Park,
Chippenham, Wiltshire, SN15 1GE.
Tel: +44 (0)1249 444524
Fax: +44 (0)1249 659448
E-mail: sales@ixysuk.com

IXYS Long beach Inc

2500 Mira Mar Avenue
Long Beach CA 90815 USA
Tel: +1 (562) 296 6584
Fax: +1 (562) 296 6585
E-mail: service@ixyslongbeach.com

The information contained herein is confidential and is protected by Copyright. The information may not be used or disclosed except with the written permission of and in the manner permitted by the proprietors IXYS UK Westcode Ltd.

© IXYS UK Westcode Ltd.

In the interest of product improvement, IXYS UK Westcode Ltd reserves the right to change specifications at any time without prior notice.

Devices with a suffix code (2-letter, 3-letter or letter/digit/letter combination) added to their generic code are not necessarily subject to the conditions and limits contained in this report.



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/disclaimer-electronics.