

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.

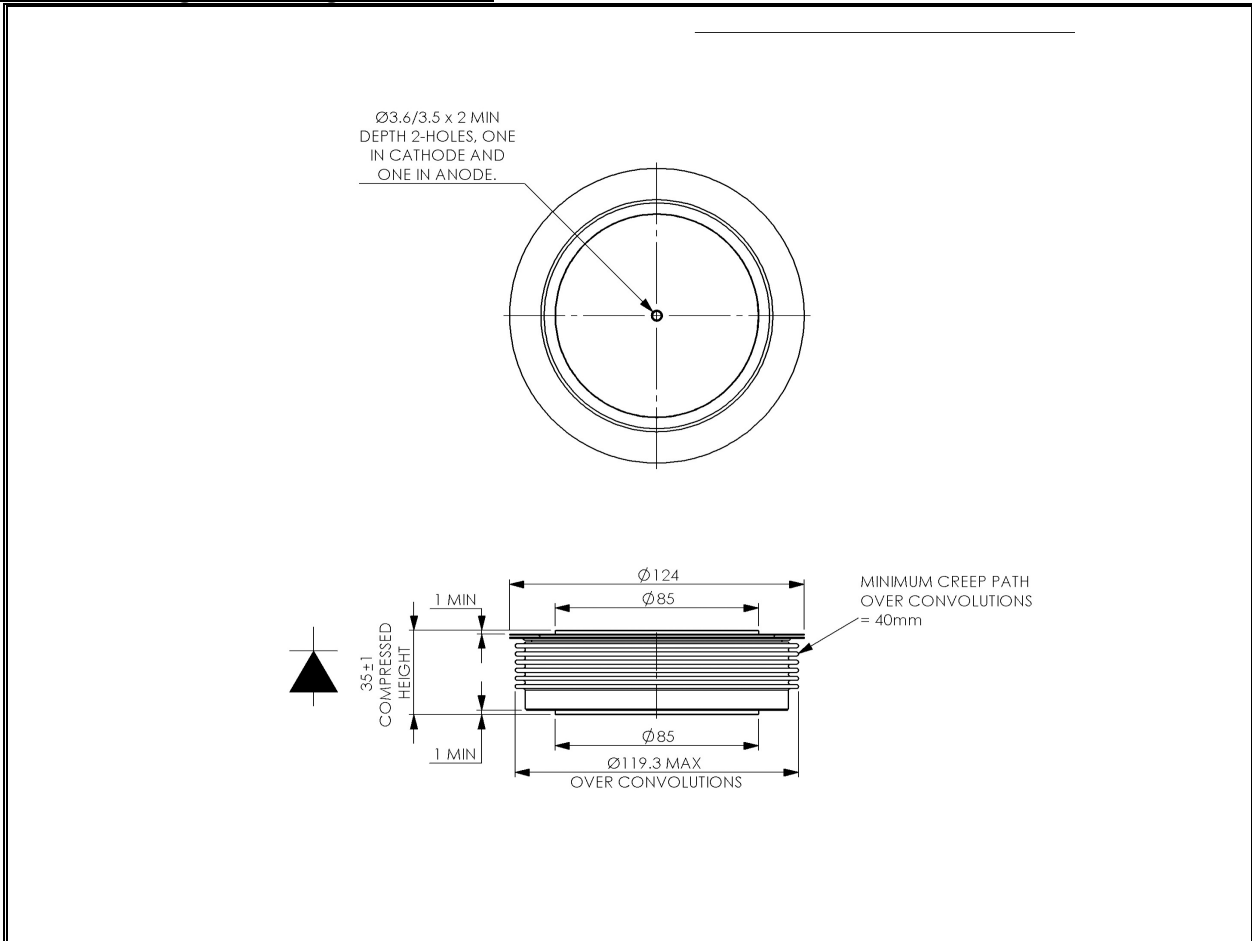
Characteristics

	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		μC
Q _{ra}	Recovered charge, 50% Chord	-	5600	-	I _{TM} =2500A, t _p =2000μs, di/dt=10A/μs, V _r =100V	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.

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