



Rectifier Diode

Types W8400ED320 and W8400ED350

Development part number Wx586ED320-350

Absolute Maximum Ratings

	VOLTAGE RATINGS	MAXIMUM LIMITS	UNITS
V_{RRM}	Repetitive peak reverse voltage, (note 1)	3200-3500	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	3300-3600	V

	OTHER RATINGS	MAXIMUM LIMITS	UNITS
$I_{F(AV)M}$	Maximum average forward current, $T_{sink}=55^{\circ}C$, (note 2)	8400	A
$I_{F(AV)M}$	Maximum average forward current. $T_{sink}=100^{\circ}C$, (note 2)	5870	A
$I_{F(AV)M}$	Maximum average forward current. $T_{sink}=100^{\circ}C$, (note 3)	3650	A
$I_{F(RMS)M}$	Nominal RMS forward current, $T_{sink}=25^{\circ}C$, (note 2)	15400	A
$I_{F(d.c.)}$	D.C. forward current, $T_{sink}=25^{\circ}C$, (note 4)	13640	A
I_{FSM}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	83	kA
I_{FSM2}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	91.3	kA
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	34.4	kA^2s
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	41.7	kA^2s
$T_{j op}$	Operating temperature range	-40 to +160	$^{\circ}C$
T_{stg}	Storage temperature range	-55 to +160	$^{\circ}C$

Notes:-

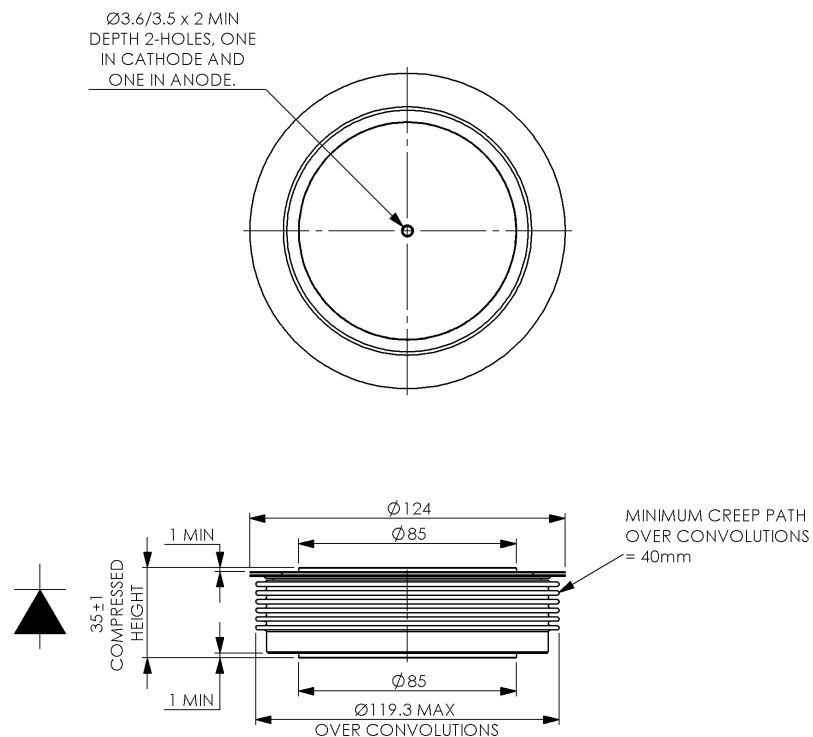
- 1) De-rating factor of 0.13% per $^{\circ}C$ is applicable for T_j below $25^{\circ}C$.
- 2) Double side cooled, single phase; 50Hz, 180° half-sinewave.
- 3) Single side cooled, single phase; 50Hz, 180° half-sinewave.
- 4) Double side cooled.
- 5) Half-sinewave, $160^{\circ}C$ T_j initial.

Characteristics

	PARAMETER	MIN.	TYP.	MAX.	TEST CONDITIONS (Note 1)	UNITS
V_{FM}	Maximum peak forward voltage	-	-	1.2	$I_{FM}=6200A$	V
V_{T0}	Threshold voltage	-	-	0.817		V
r_T	Slope resistance	-	-	0.061		mΩ
I_{RRM}	Peak reverse current	-	-	150	Rated V_{RRM}	mA
Q_{rr}	Recovered charge	-	13500	15000	$I_{TM}=2500A$, $t_p=2000\mu s$, $di/dt=10A/\mu s$, $V_r=100V$	μC
Q_{ra}	Recovered charge, 50% Chord	-	8550	-		μC
I_{rm}	Reverse recovery current	-	450	-		A
t_{rr}	Reverse recovery time, 50% chord	-	38	-		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 $T_j=160^{\circ}C$.
- 2) For other clamp forces, please consult factory.

Outline Drawing & Ordering Information


100A377

ORDERING INFORMATION

(Please quote 10 digit code as below)

W8400	ED	♦♦	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{RRM}/100$ 32 and 35	Fixed code

 Order code: W8400ED320 – 3200V V_{RRM} , 35mm clamp height capsule.

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