

Wespack Rectifier Diode

Types W1980JK180 & W1980JK220

Absolute Maximum Ratings

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

	OTHER RATINGS	MAXIMUM LIMITS	UNITS
$I_{F(AV)M}$	Maximum average forward current, $T_{sink}=55^{\circ}C$, (note 2)	1980	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink}=100^{\circ}C$, (note 2)	1470	A
$I_{F(AV)M}$	Maximum average forward current, $T_{sink}=100^{\circ}C$, (note 3)	820	A
$I_{F(RMS)}$	Nominal RMS forward current, $T_{sink}=25^{\circ}C$, (note 2)	3575	A
$I_{F(D.C.)}$	D.C. forward current, $T_{sink}=25^{\circ}C$, (note 4)	3160	A
I_{FSM}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	15.4	kA
I_{FSM2}	Peak non-repetitive surge $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	17.7	kA
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}=60\%V_{RRM}$, (note 5)	1.18×10^6	A^2s
I^2t	I^2t capacity for fusing $t_p=10ms$, $V_{rm}\leq 10V$, (note 5)	1.56×10^6	A^2s
$T_{j\ op}$	Operating temperature range	-40 to +175	$^{\circ}C$
T_{stg}	Storage temperature range	-40 to +200	$^{\circ}C$

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) Cathode side cooled, single phase; 50Hz, 180° half-sinewave.
- 4) Double side cooled.
- 5) Half-sinewave, $175^{\circ}C$ T_j initial.

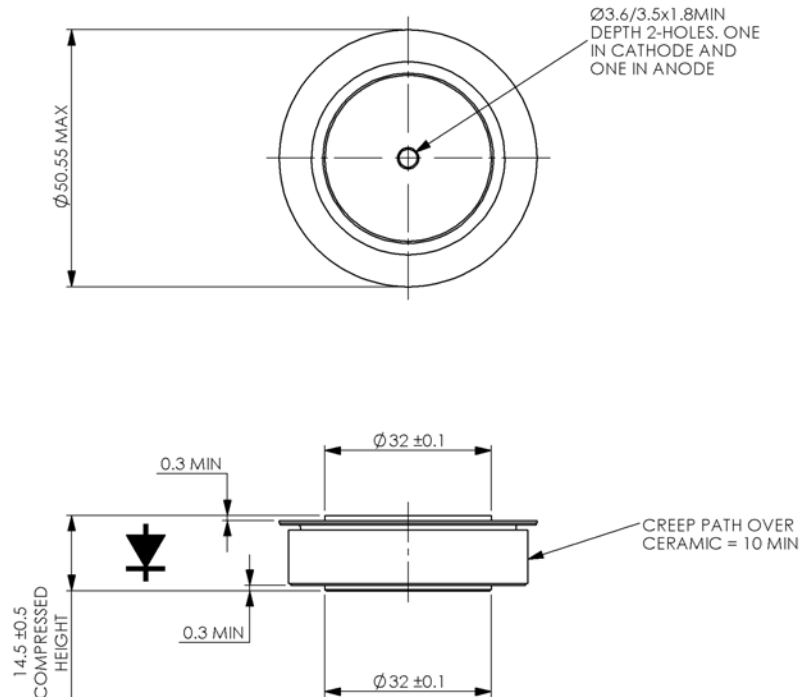
Characteristics

	PARAMETER	MIN.	TYP.	MAX.	TEST CONDITIONS (Note 1)	UNITS
V _{FM}	Maximum peak forward voltage	-	-	1.12	I _{FM} =1000A	V
V _{FM}	Maximum peak forward voltage	-	-	1.93	I _{FM} =3770A	V
V _{T0}	Threshold voltage	-	-	0.87		V
r _T	Slope resistance	-	-	0.28		mΩ
I _{RRM}	Peak reverse current	-	-	30	Rated V _{RRM}	mA
R _{thJK}	Thermal resistance, junction to heatsink	-	-	0.0270	Double side cooled	K/W
		-	-	0.0469	Anode side cooled	K/W
		-	-	0.0636	Cathode side cooled	K/W
F	Mounting force	16	-	20	Note 2	kN
W _t	Weight	-	135	-		g

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)

W1980	JK	◆◆	0
Fixed Type Code	Fixed Outline Code	Voltage code $V_{RRM}/100$ 18 or 22	Fixed code

Typical order code: W1980JK220 – 2200V V_{RRM} , 14mm 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 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 Corporation
3540 Bassett Street
Santa Clara CA 95054 USA
Tel: +1 (408) 982 0700
Fax: +1 (408) 496 0670
E-mail: sales@ixys.net

www.ixysuk.com

www.ixys.com

IXYS Long Beach
IXYS Long Beach, Inc
2500 Mira Mar Ave, Long Beach
CA 90815
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 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.