

Wespack Rectifier Diode

Types W4295NK200 and W4295NK220

Absolute Maximum Ratings

	VOLTAGE RATINGS	MAXIMUM LIMITS	UNITS
V _{RRM}	Repetitive peak reverse voltage, (note 1)	2000-2200	V
V _{RSM}	Non-repetitive peak reverse voltage, (note 1)	2100-2300	V

	OTHER RATINGS	MAXIMUM LIMITS	UNITS
I _{F(AV)M}	Maximum average forward current, T _{sink} =55°C, (note 2)	4295	A
I _{F(AV)M}	Maximum average forward current. T _{sink} =85°C, (note 2)	3566	A
I _{F(AV)M}	Maximum average forward current. T _{sink} =85°C, (note 3)	2351	A
I _{F(AV)M}	Maximum average forward current. T _{sink} =85°C, (note 4)	2086	A
I _{F(RMS)M}	Nominal RMS forward current, T _{sink} =25°C, (note 2)	7765	A
I _{F(d.c.)}	D.C. forward current, T _{sink} =25°C, (note 5)	6764	A
I _{FSM}	Peak non-repetitive surge t _p =10ms, V _{rm} =60%V _{RRM} , (note 6)	28	kA
I _{FSM2}	Peak non-repetitive surge t _p =10ms, V _{rm} ≤10V, (note 6)	31	kA
I ² t	I ² t capacity for fusing t _p =10ms, V _{rm} =60%V _{RRM} , (note 6)	3.92×10 ⁶	A ² s
I ² t	I ² t capacity for fusing t _p =10ms, V _{rm} ≤10V, (note 6)	4.81×10 ⁶	A ² s
T _{j op}	Operating temperature range	-55 to +175	°C
T _{stg}	Storage temperature range	-55 to +200	°C

Notes:-

- 1) De-rating factor of 0.13% per °C is applicable for T_j below 25°C.
- 2) Double side cooled, single phase; 50Hz, 180° half-sinewave.
- 3) Single side cooled (Anode), single phase; 50Hz, 180° half-sinewave.
- 4) Single side cooled (Cathode), single phase; 50Hz, 180° half-sinewave.
- 5) Double side cooled.
- 6) Half-sinewave, 175°C T_j initial.

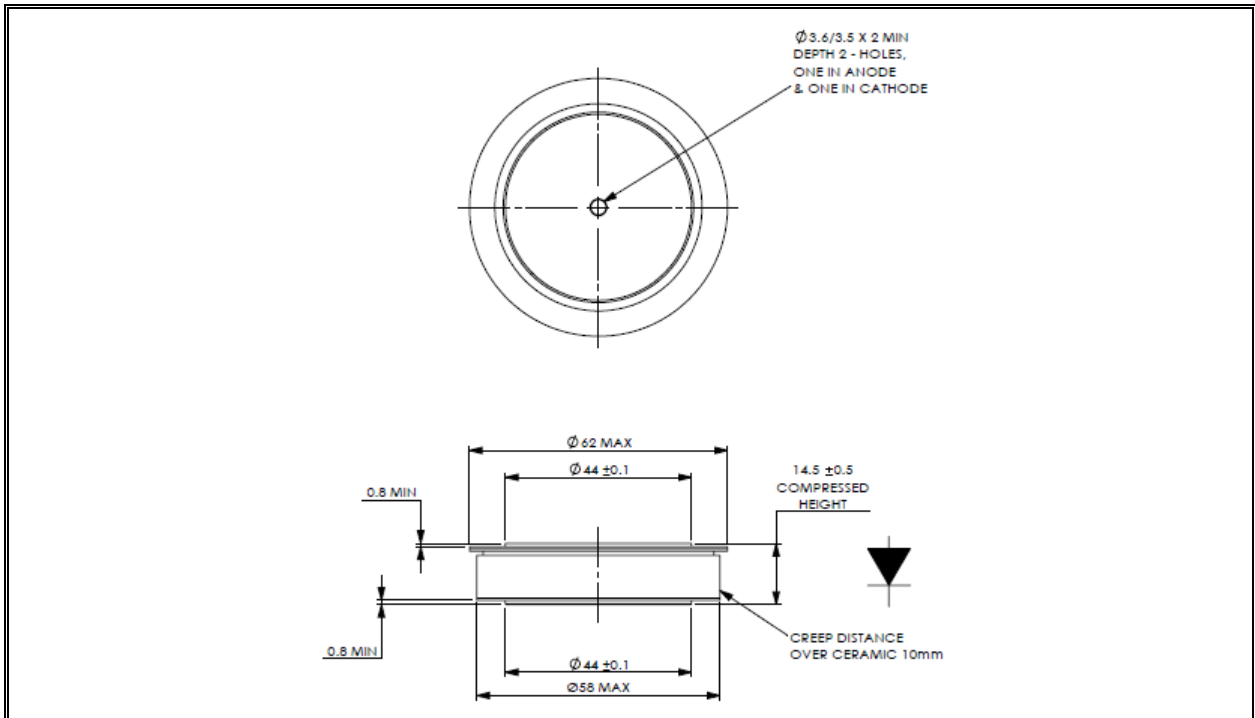
Characteristics

	PARAMETER	MIN.	TYP.	MAX.	TEST CONDITIONS (Note 1)	UNITS
V _{FM}	Maximum peak forward voltage	-	-	1.47	I _{TM} =6400A	V
V _{FM}	Maximum peak forward voltage	-	-	1.76	I _{TM} =9800A	V
V _{T0}	Threshold voltage	-	-	0.826		V
r _T	Slope resistance	-	-	0.104		mΩ
I _{R_{RRM}}	Peak reverse current	-	-	50	Rated V _{RRM}	mA
I _{R_{RRM}}	Peak reverse current	-	-	50	Rated V _{RRM} , T _j =25°C	mA
Q _{rr}	Recovered charge	-	2400	-		μC
Q _{ra}	Recovered charge, 50% Chord	-	1900	2350	I _{TM} =1000A, t _p =1000μs, di/dt=10A/μs, V _r =50V	μC
I _{rr}	Reverse recovery current	-	150	-		A
t _{rr}	Reverse recovery time	-	25	-		μs
R _{thJK}	Thermal resistance, junction to heatsink	-	-	0.0145	Double side cooled	K/W
		-	-	0.0268	Single side cooled (anode)	K/W
		-	-	0.0317	Single side cooled (Cathode)	K/W
F	Mounting force	19	-	26		kN
W _t	Weight	-	250	-		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)

W4295	NK	◆◆	0
Fixed Type Code	Outline code	Voltage code V _{DRM} /100 20 & 22	Fixed turn-off time code

Typical order code: W4295NK220 – 2200V V_{DRM}, V_{RRM},

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