

Date: - 18 Nov 2014

Data Sheet Issue:- 2

Pulse Thyristor Type Y200CKC250

Absolute Maximum Ratings

	VOLTAGE RATINGS	MAXIMUM LIMITS	UNITS
V_{DRM}	Repetitive peak off-state voltage, (note 1)	2500	V
V_{DSM}	Non-repetitive peak off-state voltage, (note 1)	2500	V
V_{RRM}	Repetitive peak reverse voltage, (note 1)	2000	V
V_{RSM}	Non-repetitive peak reverse voltage, (note 1)	2100	V
V_{DC}	Permanent dc voltage	1500	V

	OTHER RATINGS	MAXIMUM LIMITS	UNITS
I _{TM}	Maximum pulse current, (note 2)	20	kA
l ² t	Load limit integral, (note 2)	50×10 ³	A^2s
I _{T(AV)M}	Maximum average on-state current. T _{sink} =85°C, (note 3)	245	Α
(di/dt) _{cr}	Critical rate of rise of on-state current (non-repetitive), (Note 4)	5000	A/µs
V_{RGM}	Peak reverse gate voltage	18	V
T _{j op}	Operating temperature range	-40 to +125	°C
T_{stg}	Storage temperature range	-40 to +150	°C

Notes:-

- 1) V_{GK}=-2V
- 2) T_j =125°C, half-sinewave, $t_{p(max)}$ =250 μ s
- 3) Double side cooled, single phase; 50Hz, 180° half-sinewave.



Characteristics

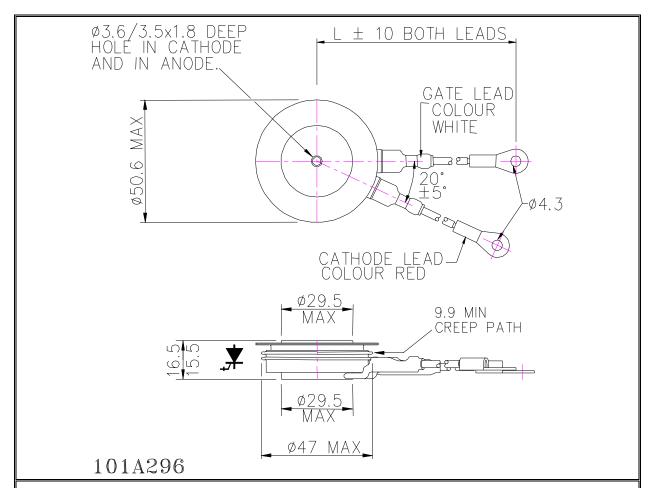
	PARAMETER	MIN.	TYP.	MAX.	TEST CONDITIONS (Note 1)	UNITS
V _{TM}	Maximum peak on-state voltage	-	-	10	I _G =4A, I _{TM} =4000A	V
V_{T0}	Threshold voltage	-	-	1.216		V
r _T	Slope resistance	-	-	2.196		mΩ
(dv/dt) _{cr}	Critical rate of rise of off-state voltage	1000	-	-	V _D =67% V _{DRM} , Linear ramp, V _{GK} =-2V	V/μs
I _{DRM}	Peak off-state current	-	-	100	Rated V _{DRM}	mA
I _{RRM}	Peak reverse current	-	-	100	Rated V _{RRM}	mA
IL	Latching current	-	10	-	T. 0500	Α
I _H	Holding current	-	10	-	T _j =25°C	Α
I _{GT}	Nominal gate trigger current	-	-	50	di _G /dt=100A/μs, T _j =25°C	Α
t _{gd}	Gate controlled turn-on delay time	-	0.9	-	V _D =1500V, I _{TM} =10kA, di/dt=2500A/μs,	
t _{gt}	Turn-on time	-	1.0	-	I_{FG} =50A, di_{G}/dt =100A/ μ s, T_{j} =25°C.	μs
		-	-	0.065	Double side cooled	K/W
R_{thJK}	Thermal resistance, junction to heatsink	-	-	0.090	Anode side cooled	K/W
		-	-	0.240	Cathode side cooled	K/W
F	Mounting force	4.5	-	9.0		kN
W_t	Weight	-	120	-		g

Notes:-

¹⁾ Unless otherwise indicated T_j =125°C.



Outline Drawing & Ordering Information



ORDERING INFORMATION

(Please quote 10 digit code as below)

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Y200C	KC	* *	0	
Fixed Type Code			Fixed code	

Typical order code: Y200CKC250 – 2500V V_{DRM}, 16.5mm clamp height capsule.

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