



Ruttonsha International Rectifier Ltd.

SILICON CONTROL RECTIFIER

High Power Phase Control Thyristor
Hockey Puk Version
Type:- 2630PL/PM 280

FEATURES

- # Center amplifying gate.
- # Metal case with ceramic insulator.
- # High profile hockey - puk.

TYPICAL APPLICATION

- # DC Motor control (e.g. for machine tools).
- # Controlled rectifiers (e.g. for battery charging
Uninterrupted power supply).
- # AC Controllers (e.g. for temperature control lights control).

MAJOR RATING & CHARACTERISTICS

Parameters	2630 PL/PM	Units
$I_{T(AV)}$ @ 60°C	2630	A
$I_{T(RMS)}$	4130	A
I_{TSM} @ 50Hz	35.25	KA
I^2t @ 50Hz	6.21	MA ² S
$V_{DRM} - V_{RRM}$	2000 to 2800	V
T_J	-40 to 125	°C

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2630 PL/PM SERIES

ELECTRICAL SPECIFICATION

VOLTAGE RATINGS

Type Number	Voltage Code	V_{RMM}/V_{DRM} max. repetitive peak reverse voltage V	V_{RSM} max.Non-repetitive peak reverse voltage V	I_{DRM} / I_{RRM} max. @ 125°C Max. mA
2630 PL/PM	200	2000	2100	200
	240	2400	2500	
	260	2600	2700	
	280	2800	2900	

ON-STATE CONDUCTION

	Parameter	2630PL/PM	Unit	Conditions	
$I_{T(AV)}$	Max, average on-state current @ Case temperature	2360	A	180° conduction, half sine wave	
		60	°C		
$I_{T(RMS)}$	Max, RMS on-state current	4130	A	as AC switch	
I_{TSM}	Max, peak, one cycle on-state, non-repetitive surge current	35.25	KA	t = 10ms	Sinusoidall half wave, Initial Tj = Tj max.
I^2t	Maximum I^2t for fusing	6.21	MA ² s	t = 10ms	Sinusoidall half wave, Initial Tj = Tj max.
$V_{T(TO)}$	Threshould voltage	0.97	V	Tj = Tj max.	
r_t	On-state slope resistance	0.18	mΩ	Tj = Tj max,	
V_{TM}	Max, on-state voltage drop	1.4	V	$I_r = 2000$ Amps, 125°C	
I_H	Holding current	300	mA	Anod supply = 12V, initial $I_r = 5$ A, Tj = 25°C	
I_L	Latching current	1.0	A	Anod supply = 12V, resistive load =1Ω, gate pulse : 10V, 100μs, Tj = 25°C	

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BLOCKING

	Parameter	2630 PL/PM	Unit	Conditions
dv/dt	Maximum critical rate of rise off-state voltage	1500	V/ μ s	T _j = 125°C, exponential to 67% rated V _{DRM}
I _{RRM} I _{ORM}	Max. peak reverse and off-state leakage current	200	mA	T _j = 125°C, rated V _{DRM} /V _{RRM} applied
di/dt	Repetitive Critical rate of rise of on-state current	150	A/ μ s	I _{trm} - 2000A, T _j = 125°C

TRIGGERING

	Parameter	2630 PL/PM	Unit	Conditions
P _{GM}	Max, peak gate power	150	W	T _j = 125°C, t _p = 100 μ s
P _{G(AV)}	Maximum average gate power	2.0		T _j = 125°C, f = 50Hz, d% = 50
I _{GM}	Max, peak positive gate current	10.0	A	T _j = 125°C, t _p $\leq$ 5ms
+V _{GM}	Max. peak positive gate voltage	15.0	V	T _j = 125°C t _p $\leq$ 5ms
-V _{GM}	Max. peak negative gate voltage	5.0		
I _{GT}	DC gate current required to trigger	250	mA	V _D = 12V.
V _{GT}	DC gate voltage for to trigger	3.0	V	V _D = 12V.
V _{GD}	DC gate voltage not to trigger	0.4	V	T _j = 125°C Max. gate current/voltage not to trigger the max, value which will not trigger any unit with rated V _{DRM} anode-to-cathode applied
I _{GD}	DC gate current not to trigger	10.0	mA	

THERMAL AND MECHANICAL SPECIFICATION

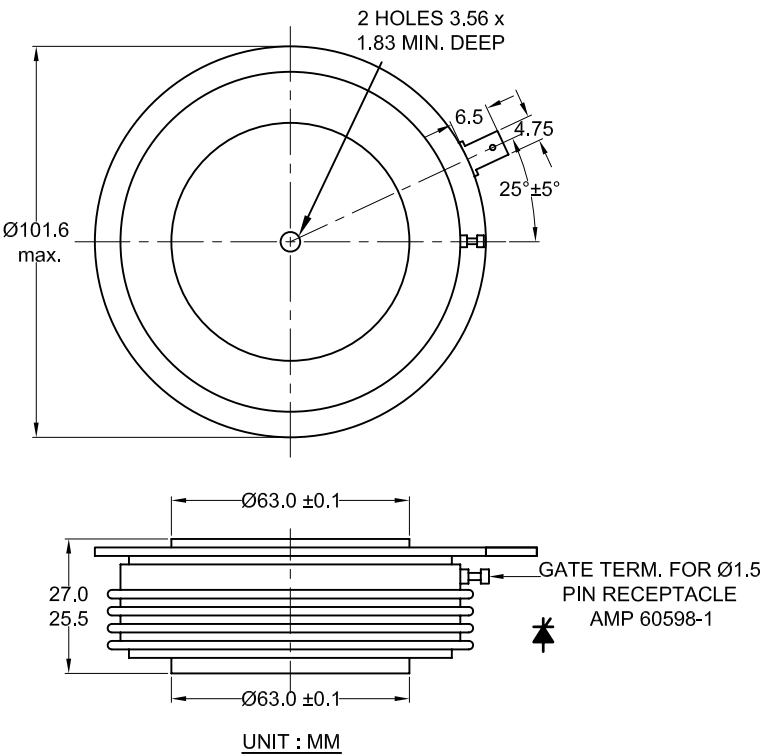
	Parameter	2630 PL/PM	Unit	Conditions
T _j	Max, operating temperature range	-40 to 125	°C	
T _{stg}	Max, storage temperature range	-40 to 125		
R _{thj-c}	Max, thermal resistance, junction to case	0.013	K/W	Double side cooled.
F	Mounting force $\pm$ 10%	35 to 45	kN	
W t	Approximate Weight	1000	g	
	Case style	L/M-PUK		

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OUTLINE DIAGRAM

L-PUK



M-PUK

