

Phase Control Thyristors

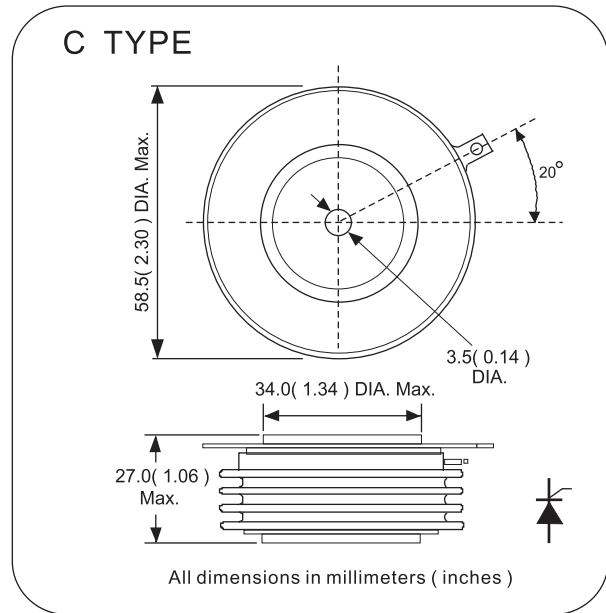
Features

- 1260PT series Thyristors are designed for various power controls
- Voltage rating up to 1200V
- Typical application
 - DC motor control
 - Controlled DC power supplies
 - AC controllers

Ordering code

1260	PT	xx	C	0
(1)	(2)	(3)	(4)	(5)

- (1) Maximum average on-state current , A
- (2) For Phase Control Thyristor
- (3) Voltage code , code x 100 = V_{RRM} / V_{DRM}
- (4) package style : A , B , C , D , E
- (5) Terminal types
0 - for eyelet



Electrical Characteristics

Symbol	Parameter	Condition	Value			Unit
			Min.	Type	Max.	
$I_T(AV)$	Mean on-state current	180° half sine wave , 50Hz Double side cooled , $T_C = 55^\circ C$			1260	A
$I_T(RMS)$	Max. RMS on-state current	Double side cooled , $T_{hs} = 55^\circ C$			2520	A
V_{RRM} V_{DRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM} \ t_p = 10ms$ $V_{DsM} \& V_{RsM} = V_{DRM} \& V_{RRM} + 100V$	200		1200	V
I_{TSM}	Surge on-state current	10 ms half sine wave			24000	A
I_t^2	For fusing coordination	$V_R = 0.6V_{RRM}$			2000	KA ² s
$V_{T(TO)}$	Threshold voltage				1.11	V
r_t	On-state slope resistance				0.28	mΩ
V_{TM}	Max. Forward voltage drop	$I_{TM} = 2000A$, $F = 14.1KN$			1.62	V
I_H	Holding current	$V_A = 12V$, $I_A = 1A$			600	mA
d_i/dt	Critical rate of rise of turned-on current	Gate drive 20V , 20Ω , $t_r \leq 0.5\mu s$			500	A/μs
t_q	Typical turn-off time	$I_{TM} = 400A$, $dv/dt = 30V/\mu s$ $d_iRR/dt = -10 A/\mu s$			150	μs
d_v/dt	Critical rate of rise of off-state voltage	$V_{DM} = 0.67 V_{DRM}$			1000	V/μs
I_{RRM} I_{DRM}	Repetitive peak reverse current	$V_R = V_{RRM}$ $V_D = V_{DRM}$			80	mA
P_G	Max. average gate power	Square wavepulse width 100μs			2	W
P_{GM}	Max. peak gate power square				10	W
I_{GT}	Gate trigger current	$V_A = 12V$, $I_A = 1A$	100		200	mA
V_{GT}	Gate trigger voltage		1.1		3.0	V
V_{GD}	DC voltage not to trigger	At 67% V_{DRM} , $T_j = T_j \text{ max.}$	0.25			V
I_{FGM}	Max. peak positive gate current	$T_j = T_j \text{ max.}$, $t_p \leq 3s$			4	A
V_{FGM}	Max. peak positive gate voltage				16	V
V_{RGM}	Max. peak negative gate voltage				5	V
T_{stg}	Storage temperature		- 40		140	°C
T_j	Max. operating temperature range		- 40		125	°C
$R_{th(j-h)}$	Thermal resistance(junction to heatsink)	Double side cooled , clamping force 24.0 KN			0.035	°C/W
F_m	Mounting force		10		20	KN
W_t	Approximate weight				255	g

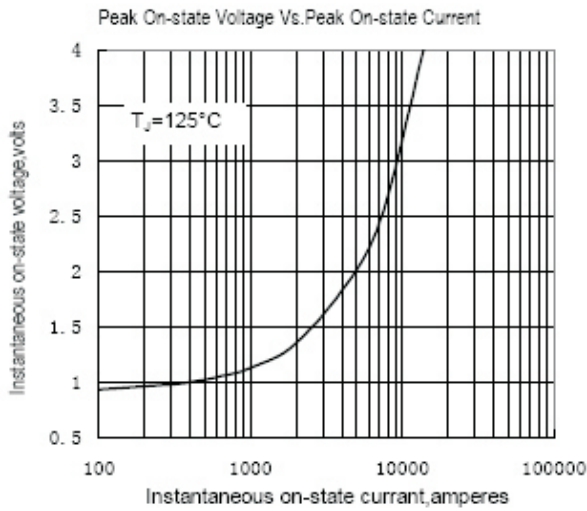


Fig.1

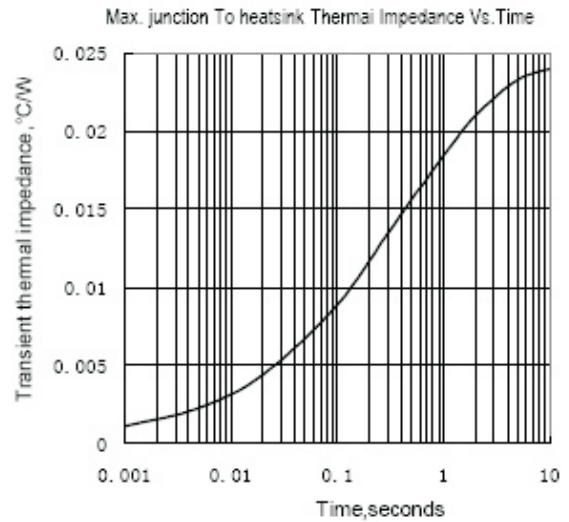


Fig.2

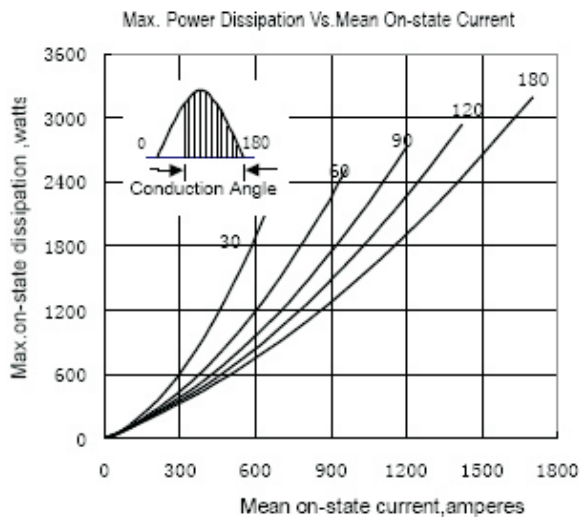


Fig.3

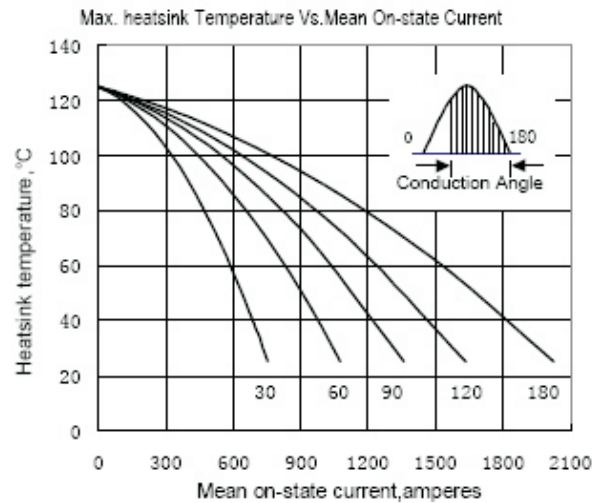


Fig.4

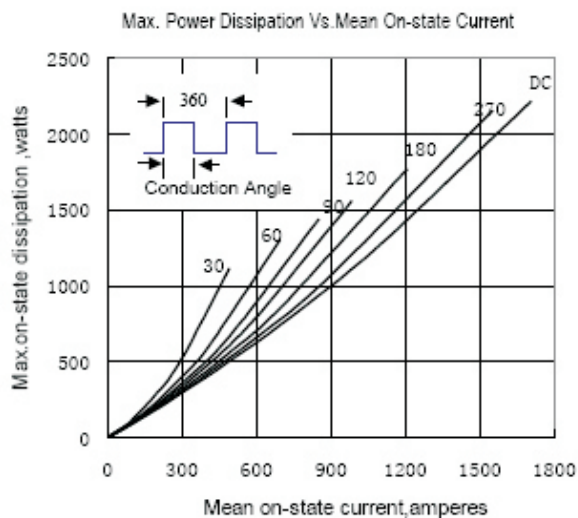


Fig.5

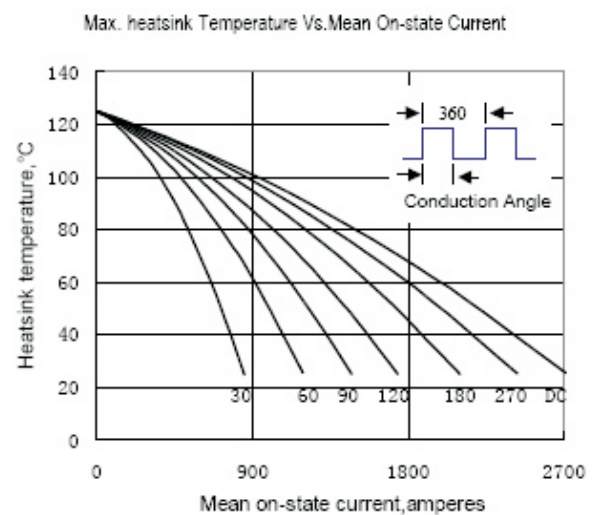


Fig.6