Type: PST-KS150A / 1800V

Maximum Ratings And Characteristics

Symbol	Parameter		Values	Units	Test Conditions
ON-STATE					
I_{TRMS}	RMS value of on-state current		150	A	Nominal value
I_{TSM}	Peak one cycle surge (non repetitive) current		2000	A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T_j = 125 °C
I^2t	I square t		16	KA^2s	8.3 msec and 10.0 msec
I_L	Latching current		-	mA	V_D = 24 V; R_L= 12 ohms
I_H	Holding current		-	mA	V_D = 24 V; I = 2.5 A
V_{TM}	Peak on-state voltage		1.65	V	I_{TM} = 450 A; T_j = 25 °C
di/dt	Critical rate of rise of on-state current	non-repetitive	-	A/μs	Gate drive 20V, 20Ω, t_r≤1μs, T_j=$T_j$max, anode voltage≤80% V_{DRM}
		repetitive	10		
BLOCKING					
V_{DRM} V_{RRM}	Repetitive peak off state voltage Repetitive peak reverse voltage		1800	V	
V_{DSM} V_{RSM}	Non repetitive peak off state voltage Non repetitive peak reverse voltage		1900	V	
I_{DRM} I_{RRM}	Repetitive peak off state current Repetitive peak reverse current		25	mA	T_j = 100 °C ,V_{RRM} V_{DRM} applied
dV/dt	Critical rate of voltage rise		300	V/μs	T_J=$T_J$max, linear to 80% rated V_{DRM}
TRIGGEING					
$P_{G(AV)}$	Average gate power dissipation		4	W	
P_{GM}	Peak gate power dissipation		15	W	
I_{GM}	Peak gate current		-	A	
I_{GT}	Gate trigger current		150	mA	T_C = 25 °C
V_{GT}	Gate trigger voltage		3.0	V	T_C = 25 °C
V_{GD}	Gate non-trigger voltage		-	V	T_j = 125 °C
SWITCHING					
t_q	Turn-off time		-	μs	I_{TM}=550A, T_J=$T_J$max, di/dt=40A/μs, V_R=50V, dv/dt=20V/μs, Gate 0V 100Ω, t_p=500μs
t_d	Delay time		-		Gate current A, di/dt=40A/μs, V_d=0.67%V_{DRM}, T_J=25 °C
Q_{rr}	Reverse recovery charge		-		

Tel: +86-514-87782298, 87782296 FAX:+86-514-87782297, 87367519
E-mail:positioning@china.com; info@yzpst.com; yzpst@pst888.com
Web Site:www. Pst888.com www. yzpstcc.com www. yzpst.net www. yzpst.com

Thermal And Mechanical

Symbol	Parameter	Values	Units	Test Conditions
T_j	Operating temperature	-40~125	°C	
T_{stg}	Storage temperature	-40~150	°C	
$R_{th\ (j-c)}$	Thermal resistance - junction to case	0.13	°C/W	DC operation ， Single sided cooled
$R_{th\ (c-s)}$	Thermal resistance - case to sink	0.075	°C/W	Single sided cooled
P	Mounting force	31	Nm	± 10 %
W	Weight	-	g	about

OUTLINE