



PSTSK008DRP **SCR<sub>S</sub>**

● **Package**

T0-252

● **Main Feature (T<sub>j</sub>=25°C)**

Symbol	Value	Unit
$I_{T(AV)}$	7.5	A
$V_{DRM} / V_{RRM}$	$\geq 1000$	V
$I_{GT}$	1 to 15	mA



● **Absolute ratings (Limiting Values)**

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current (180° conduction angle)	12	A
$I_{T(AV)}$	AV on-state current (180° conduction angle)	7.5	A
$I_{TSM}$	Non repetitive surge peak on-state Current (tp=10ms)	100	A
$I^2t$	(tp=10ms)	50	A <sup>2</sup> S
$I_{GM}$	Peak gate current(tp=20us)	2	A
$P_{GM}$	Peak gate power	5	W
$P_{G(AV)}$	Average gate power	0.5	W
Tstg	Storage temperature	-40--+150	°C
T <sub>j</sub>	Operating junction temperature	-40--+125	

● **Thermai Resistances**

Symbol	Parameter	Value	Unit
Rth (j-c)	Junction to case	1.3	K/W
Rth (j-a)	Junction to ambient	60	K/W

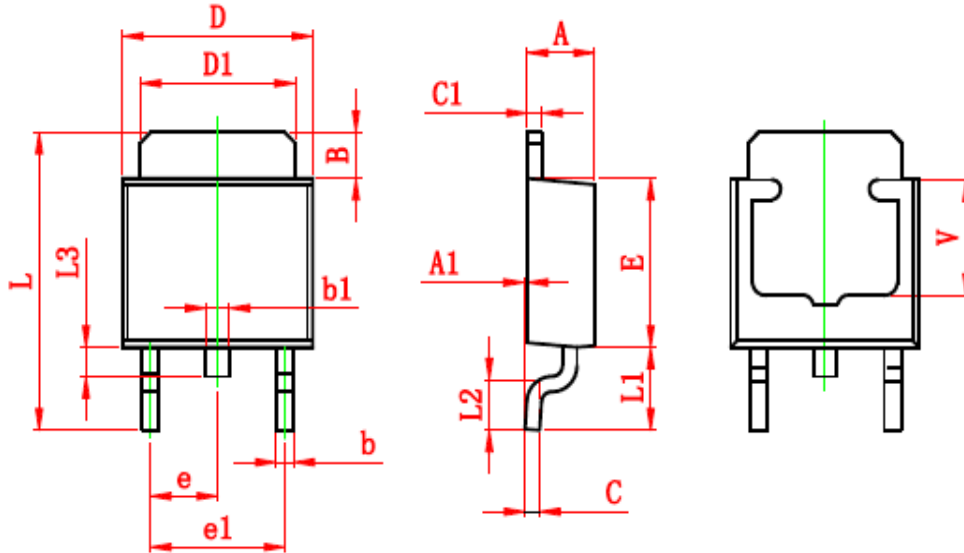


● **Electrical characteristics ( $T_j=25^\circ\text{C}$  unless otherwise stated)**

Symbol	Test Conditions		Value			Unit
			Min	Type	Max	
$I_{GT}$	$V_D=6V, R_L=100\ \Omega$		1	5	15	mA
$V_{GT}$	$V_D=12V, R_L=100\ \Omega$		-----	0.7	0.8	V
$V_{GD}$	$V_D=V_{DRM}, R_L=3.3K\ \Omega\ T_j=110^\circ\text{C}$		0.2	-----	-----	V
$I_H$	$I_T=100\text{mA}\ \text{Gate Open}$		-----	9	20	mA
$dV/dt$	$V_D=67\% V_{DRM}, \text{GateOpen}, T_j=125^\circ\text{C}$		50	125	-----	v/ $\mu$ s
$V_{TM}$	$I_T=16A, tp=380\ \mu\text{s}$		-----	-----	1.7	V
$I_{DRM}$	$V_D=V_{DRM}$	$T_j=25^\circ\text{C}$	-----	-----	20	uA
$I_{RRM}$	$V_R=V_{RRM}$	$T_j=110^\circ\text{C}$	-----	-----	300	uA



● Measure of package  
(TO-252 Type )

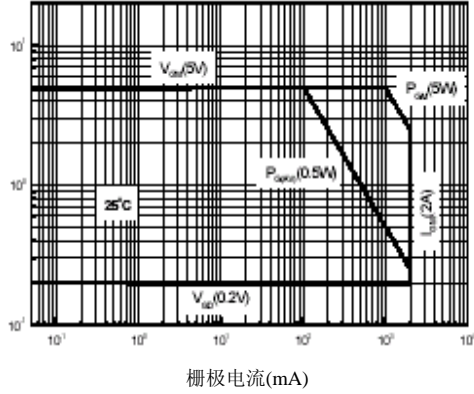


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	9.500	9.900	0.374	0.390
L1	2.550	2.900	0.100	0.114
L2	1.400	1.780	0.055	0.070
L3	0.600	0.900	0.024	0.035
V	3.800 REF.		0.150 REF.	

Unit: mm

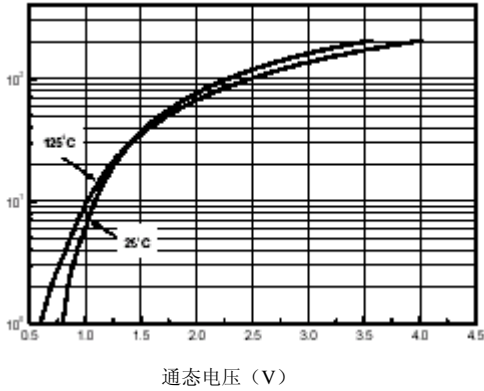
图一、栅极特性

栅极电压(v)

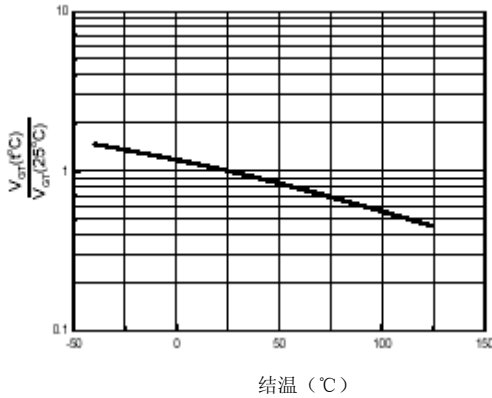


图三、典型正向压降

通态电流 (A)

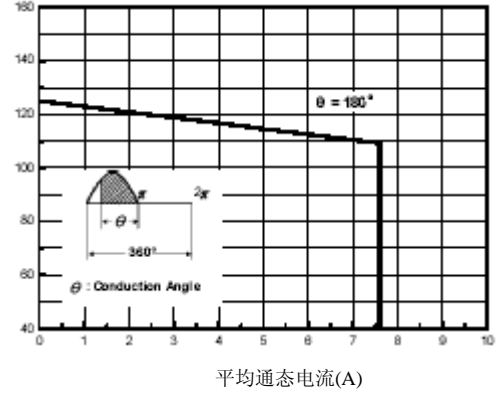


图五、典型栅极触发电压----结温



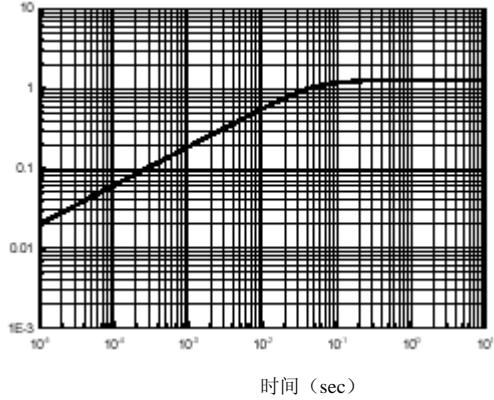
图二、最大外壳温度

最大允许外壳温度 (° C)

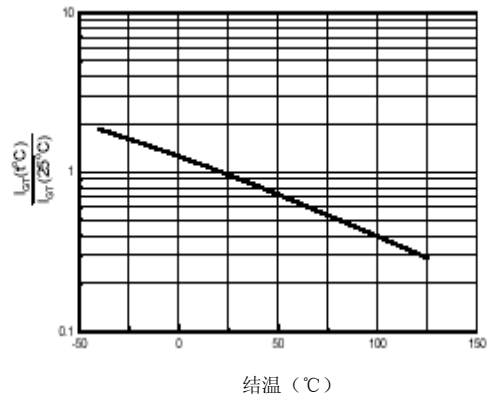


图四、热响应

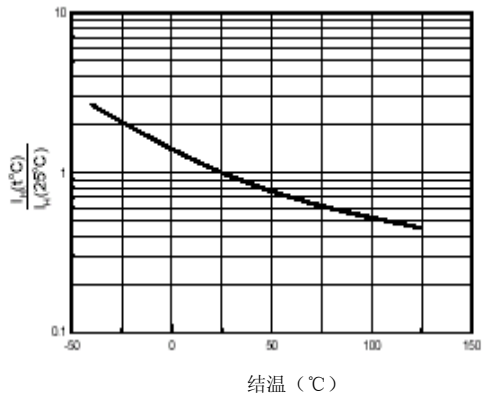
瞬态热阻 (j ac/W)



图六、典型栅极触发电流----结温

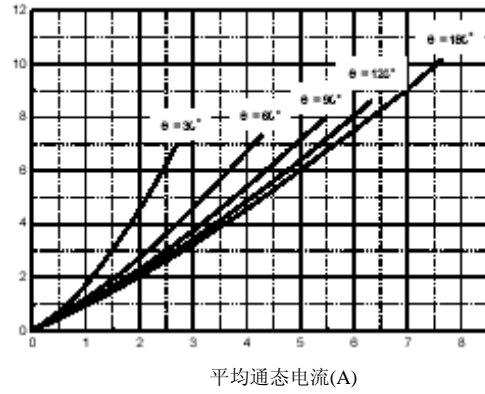


图七、典型维持电流图



八、功耗

最大平均功耗 (W)



●Electrocircuit:

