

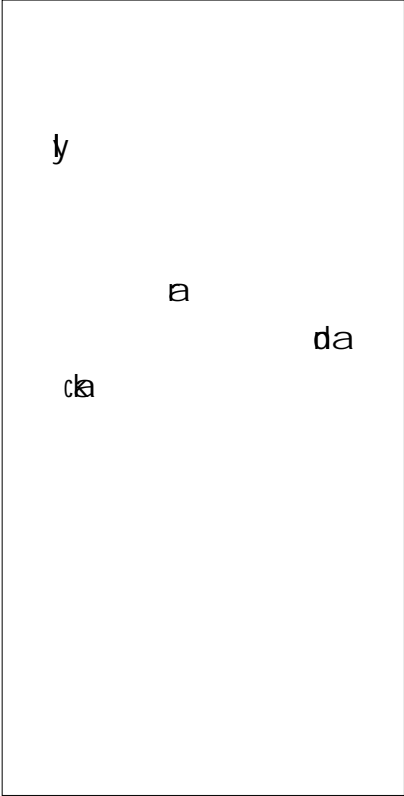


JCT625F 25A SCR

Rev.A.1.0

DESCRIPTION:

With high reliability, it is suitable for high voltage applications. It is a high voltage SCR with a peak forward current of 25A and a peak reverse current of 10mA. It is suitable for high voltage applications. It is a high voltage SCR with a peak forward current of 25A and a peak reverse current of 10mA. It is suitable for high voltage applications. It is a high voltage SCR with a peak forward current of 25A and a peak reverse current of 10mA.



MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage temperature	T_s	-40-150	
Operating temperature	T_j	-40-125	
Repetitive peak forward voltage (T _j =25 °C)	V_{DRM}	600	V
Repetitive peak reverse voltage (T _j =25 °C)	V_{RRM}	600	V
Average forward current (I _{T(AV)}) (T _j =25 °C)	$I_{T(AV)}$	16	A
RMS forward current (I _{T(RMS)}) (T _j =25 °C)	$I_{T(RMS)}$	25	A

Pea	($t_p=20\mu s$ $T_j=125$)	I_{GM}	5	A
A	($T_j=125$)	$P_{G(A)}$	1	W
Pea		P_{GM}	20	W
Pea	($T_j=25$; ρ - ϵ f - ϵ)	V_p	0.5	V

ELECTRICAL CHARACTERISTICS (Typical values)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12V$ $R_L=33$	-	-	20	A
V_{GT}		-	-	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3K$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	70	A
I_H	$I_T=500mA$	-	-	60	A
dV/dt	$V_D=400V$ G_a $nT_j=125$	1200	t_{Op}	-	V/ μs
t_b	$I_G=20A$ $I_A=200A$ $I_R=20A$ $T_j=25$	-	2	-	μs
t_{bf}		-	50	-	

STATIC CHARACTERISTICS

Symbol	Parameter	Value(MAX.)	Unit	
V_{TM}	$I_{TM}=50A$ $t_p=380\mu s$ $T_j=25$	1.5	V	
V_{TO}	Threshold $T_j=125$	0.72	V	
R_D	D_p $T_j=125$	16	m	
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=125$	0.5	A

THERMAL RESISTANCES

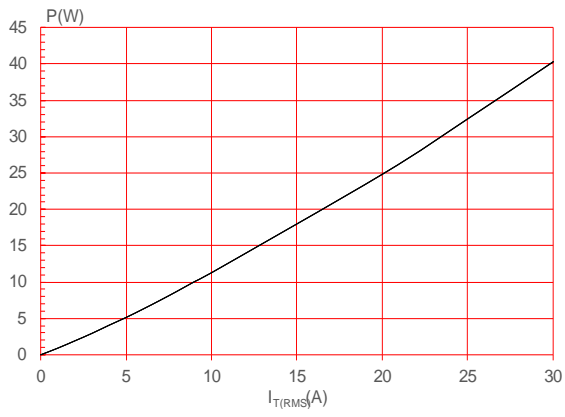
Symbol	Parameter	Value	Unit
$R_{\theta(j-c)}$	DC)	2.1	/W
$R_{\theta(j-a)}$	met(DC)	62	/W

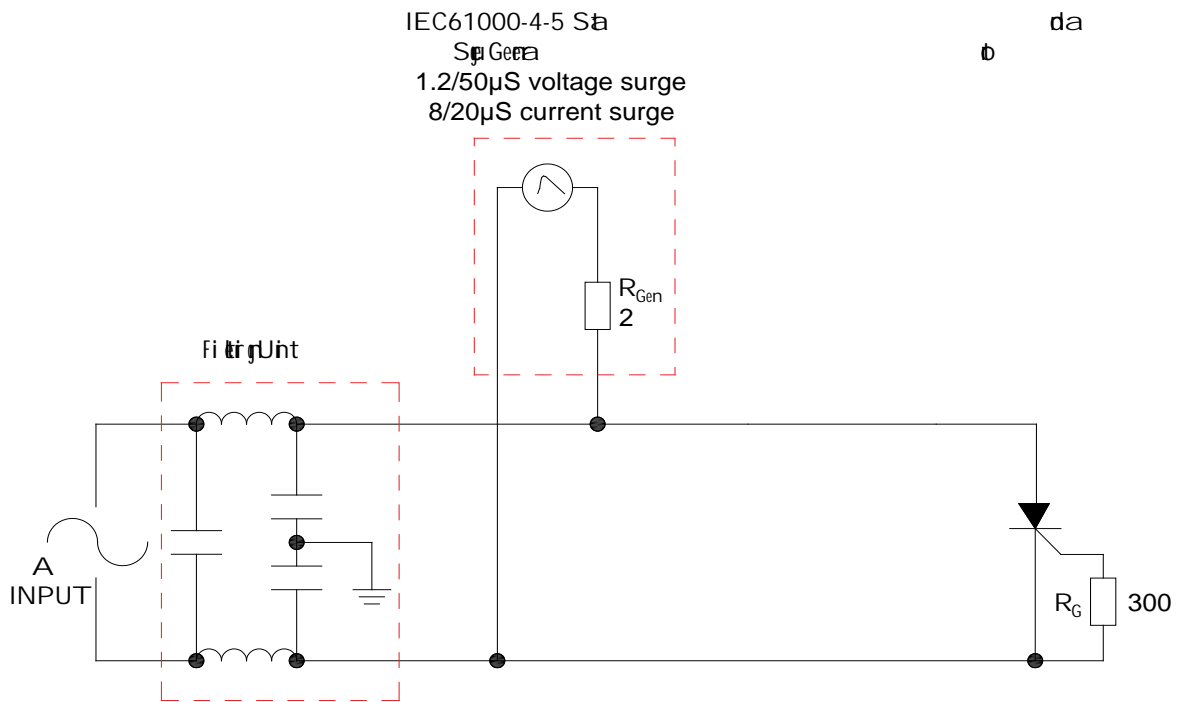
FIG.1 $P_{T(RMS)}$ vs $I_{T(RMS)}$

FIG.2: $P_{T(RMS)}$ vs $I_{T(RMS)}$

FIG.3

FIG.4





SHAPING AND SOLDERING PARAMETERS

Ref erence of diode -sa in places led in to pa

ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JCT625F	600	20	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Change	By
Aug. 13, 2023	A1.0	Initial	Wang

PACKAGE MECHANICAL DATA

