

### Feature

- Full diffusion process,capsule type ceramic package
- Distributed extension to amplify the gate structure
- Excellent dynamic characteristic
- Low switching loss,Doule-sided cooling
- Fast switching performance

$I_{T(AV)}$	1000A
$V_{DRM}/V_{RRM}$	600-2500V
$T_q$	16-35us
$I_{TSM}$	12KA

### Typical Application

- Inverter,Choppner,Inductor
- Various types of forced converter

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J$ (°C)	VALUE		UNIT	
				Min	Max		
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, THS=55°C	125		1000	A	
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM} t_p=10ms$ $V_{DSM} \& V_{RSM}=V_{DRM} \& V_{RRM}+100V$	125	600	2500	V	
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$	125		80	mA	
$I_{TSM}$	Surge on-state current	10ms half sine wave	125		14	KA	
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$			980	$A^2S*10$	
$V_{TO}$	Threshold voltage		125		1.56	V	
$r_T$	On-state slop resistance				0.33	mΩ	
$V_{TM}$	Peak on-state voltage	$I_{TM}=3000A, F=15KN$	25		3.15	V	
dv/dt	Critical rate of rise of-state voltage	$V_{DM}=0.67V_{DRM}$	125		1000	V/us	
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\% V_{DRM}$ TO 1000A, Gate pulse $t_r \leq 0.5us$ $I_{GM}=1.5A$	125		150	A/us	
$I_{TM}$	Reverse recovery current	$I_{TM}=3000A, t_q=1000us$ $Di/dt=-20A/us.$ $V_f=50V$	125		100	A	
$t_{rr}$	Reverse recovery time				5.8	us	
$Q_{rr}$	Recovery charge				290	320	uC
$t_q$	Circuit commutated turn-off time	$I_{TM}=3000A, t_q=1000us,$ $di/dt=20a/us$ $V_R=50V$	125	16	35	us	
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25		40	300	mA
$V_{GT}$	Gate trigger voltage				0.9	3	V
$I_H$	Holding current				20	500	mA
$V_{GD}$	Npn-trigger gate voltage	$V_{DM}=0.67V_{DRM}$	125	0.3		V	
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	At180° sine double side cooled Clamping force 5.0kn			0.032	°C/W	
$F_M$	Mounting force			19	26	KN	
$T_{stq}$	Stored temperature			-40	140	°C	
$W_t$	Weight					g	
Outline							

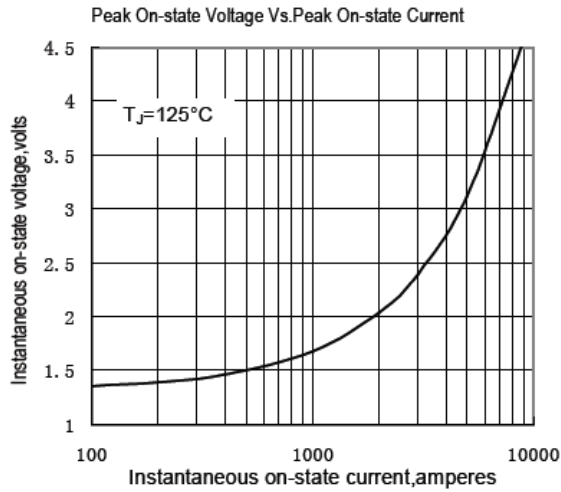


Fig.1

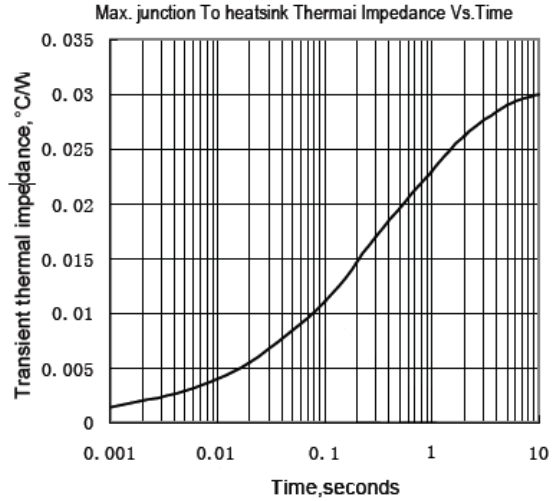


Fig.2

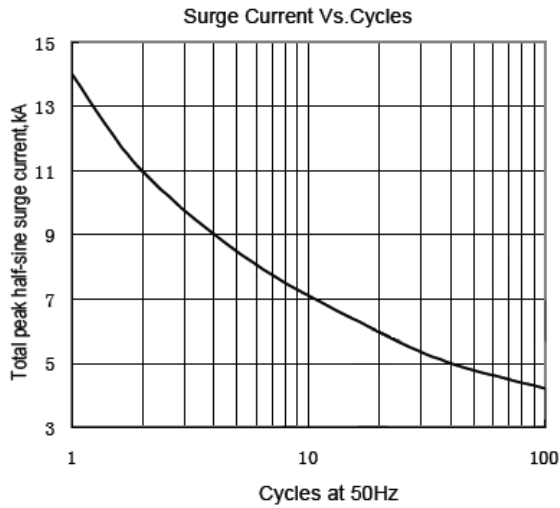


Fig.3

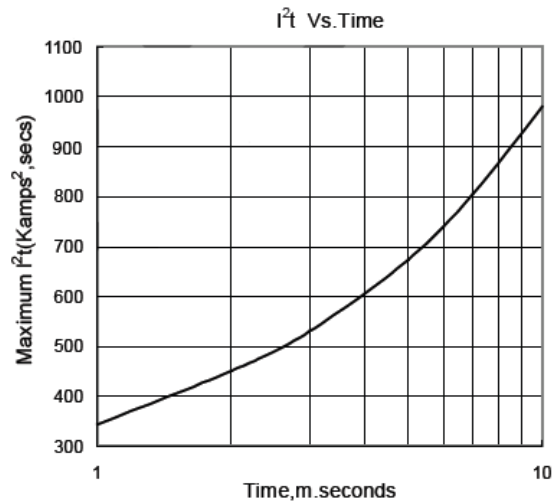


Fig.4

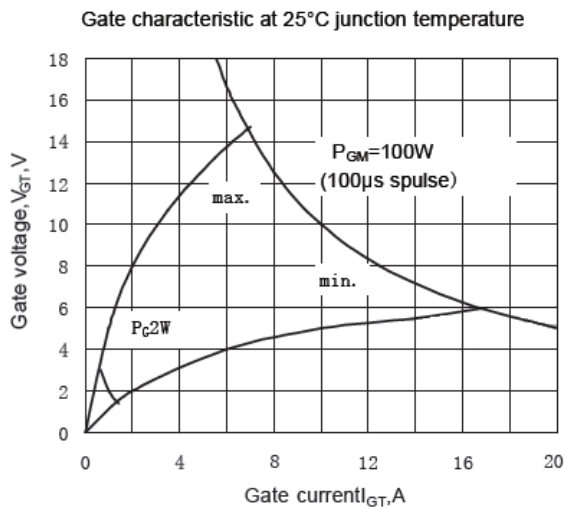


Fig.5

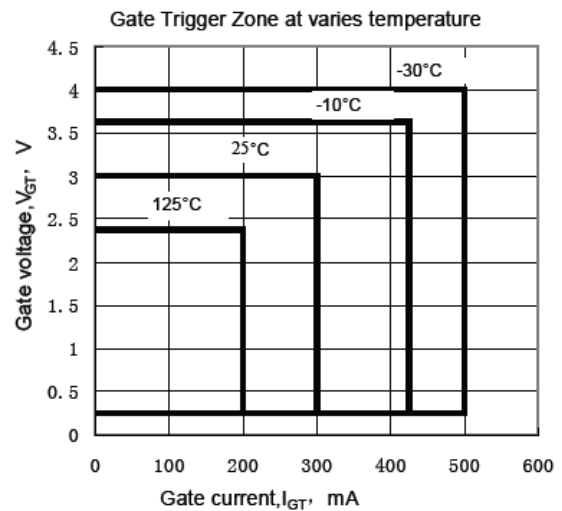
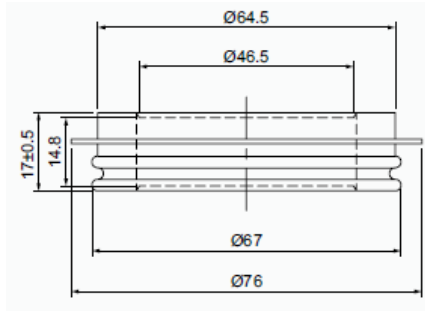
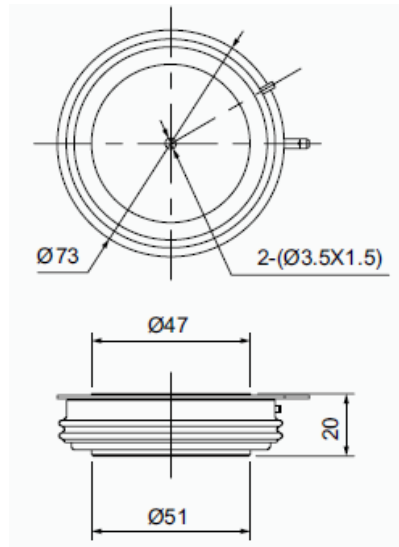


Fig.6

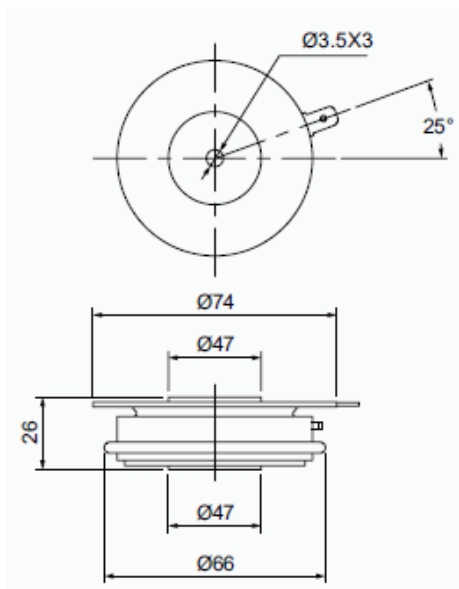
Outline:



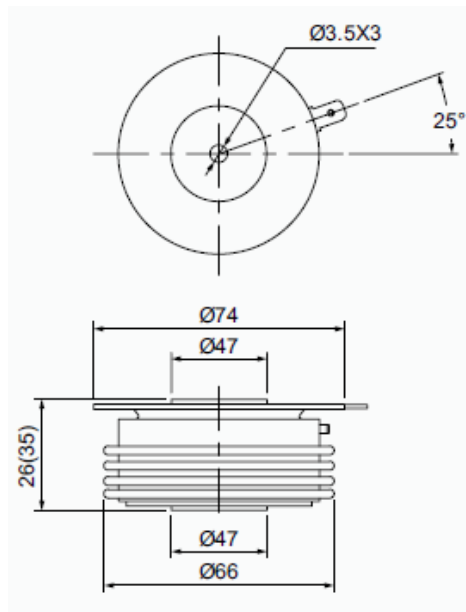
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