

Features

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$ **3300A**
 V_{DRM}/V_{RRM} **4500~5500V**
 t_q **50~150μs**
 I_{TSM} **30 kA**
 I^2t **4500 10³A²S**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS		T _j (°C)	VALUE			UNIT
					Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz	Double side cooled,	T _C =55°C	125		3300	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	4500		5500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}		125			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			30	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$		125			4500	A ² s*10 ³
V_{TO}	Threshold voltage			125			1.58	V
r_T	On-state slope resistance			125			0.17	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=2200A, F=70kN$		125			3.20	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			500	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$, to 4000A Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A		125			1200	A/μs
Q _{rr}	Recovery charge	$I_{TM}=2000A, tp=4000μs,$ $di/dt=-60A/μs, V_R=50V$		125		5000		μC
t _q	Circuit commutated turn-off time	$I_{TM}=2000A, tp=4000μs, V_R=50V$ $dv/dt=30V/μs, di/dt=-60A/μs$		125	50		150	μs
I_{GT}	Gate trigger current			25	40		450	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$			0.9		4.5	V
I_H	Holding current				20		1000	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$		125	0.25			V
$R_{th(j-c)}$	Thermal resistance Junction to case	DC· double side cooled					0.007	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 70kN					0.002	
F_m	Mounting force				63		84	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					2620		g
Outline	P19							

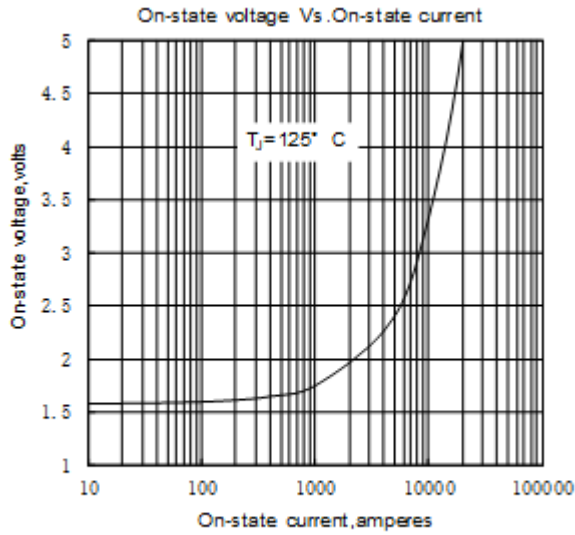


Fig. 1

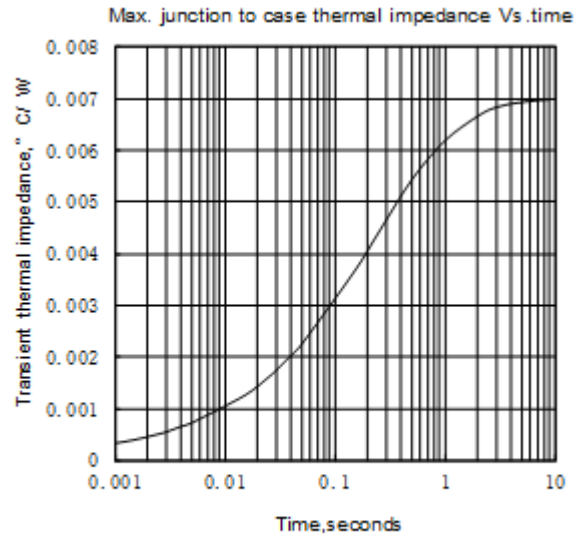


Fig. 2

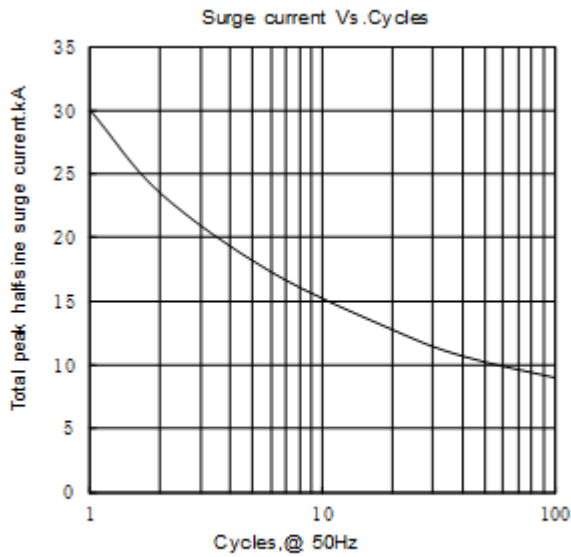


Fig. 3

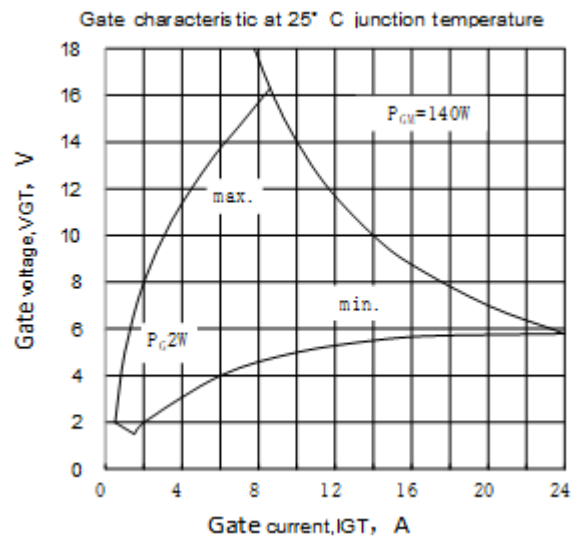


Fig. 4

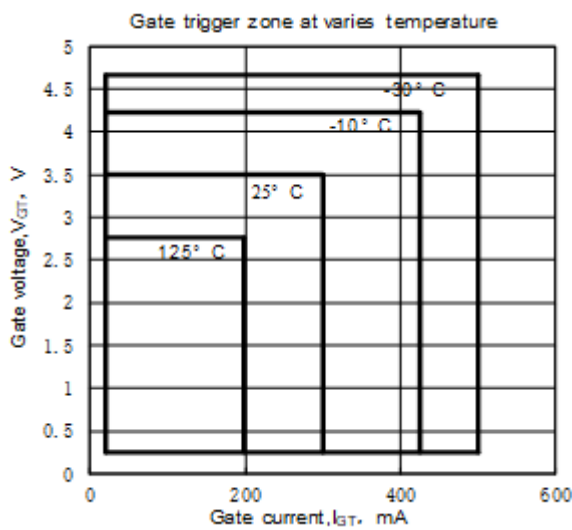
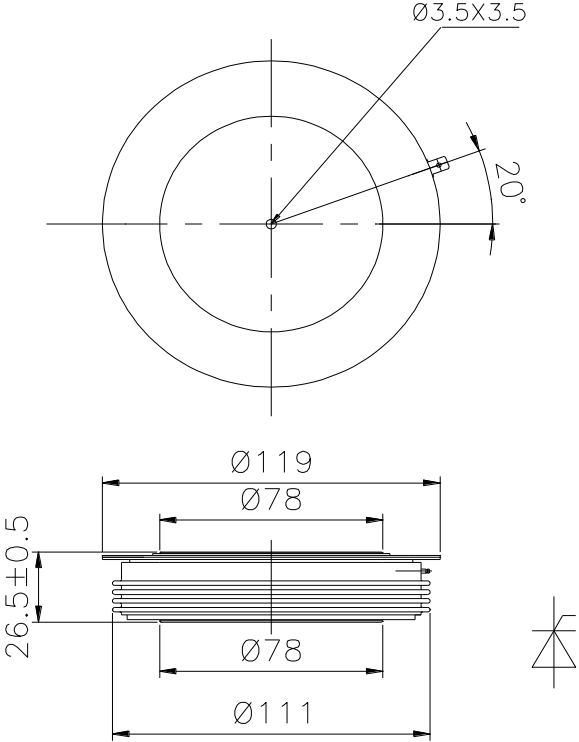


Fig. 5



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