

Features

- Small recovered charge
- Soft recovery
- Up to 5000V reverse voltage
- Capsule type metal-ceramic packages for double sided cooling

$I_{F(AV)}$ 2600A
 V_{RRM} 4000~5000V
 t_{rr} 15.0 μ s



Typical Applications

- Inverse diodes for power transistors, GTO thyristors
- AC motor control
- Snubber diodes and free-wheeling diodes

SYMBOL	CHARACTERISTIC	TEST CONDITIONS		$T_j(^{\circ}\text{C})$	VALUE			UNIT	
					Min	Type	Max		
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Double side cooled,	$T_c=70^{\circ}\text{C}$	125			2600	A	
V_{RRM}	Repetitive peak reverse voltage	tp=10ms		125	4000		5000	V	
I_{RRM}	Repetitive peak current	at V_{RRM}		125			120	mA	
I_{FSM}	Surge forward current	10ms half sine wave		125			40	kA	
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					8000	$\text{A}^2\text{s}\cdot 10^3$	
V_{FO}	Threshold voltage			125			1.10	V	
r_F	Forward slope resistance						0.47	m Ω	
V_{FM}	Peak on-state voltage	$I_{FM}=5000\text{A}$, $F=70\text{kN}$		125			2.60	V	
I_{rm}	Reverse recovery current			125		450		A	
t_{rr}	Reverse recovery time	$I_{FM}=2000\text{A}$, $t_p=2000\mu\text{s}$, $di/dt=-60\text{A}/\mu\text{s}$, $V_R=50\text{V}$					15		μs
Q_{rr}	Recovery charge						4200		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	DC: double side cooled Clamping force 70kN					0.005	$^{\circ}\text{C}/\text{W}$	
$R_{th(c-h)}$	Thermal resistance case to heatsink						0.0015		
F_m	Mounting force				63		84	kN	
T_{stg}	Stored temperature				-40		125	$^{\circ}\text{C}$	
W_t	Weight					1390		g	
Outline	P47								

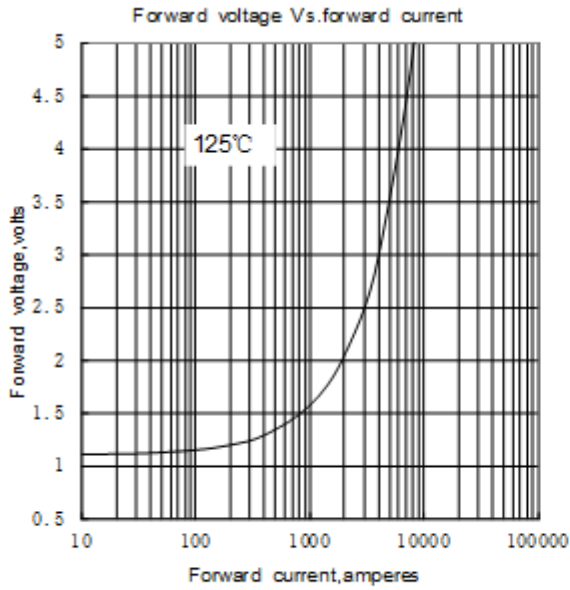


Fig.1

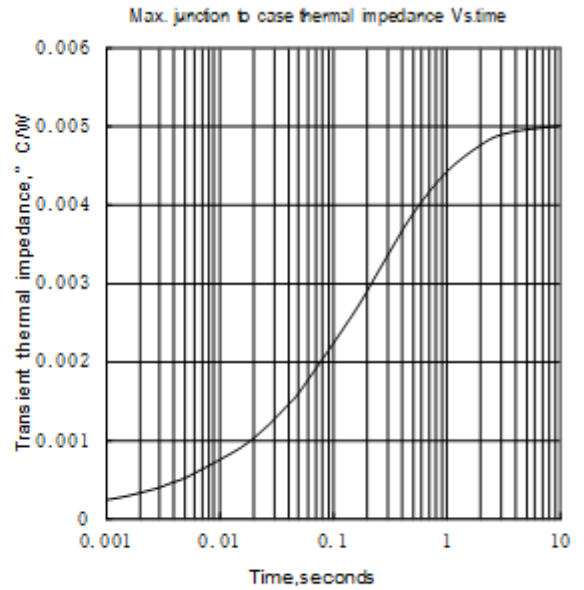


Fig.2

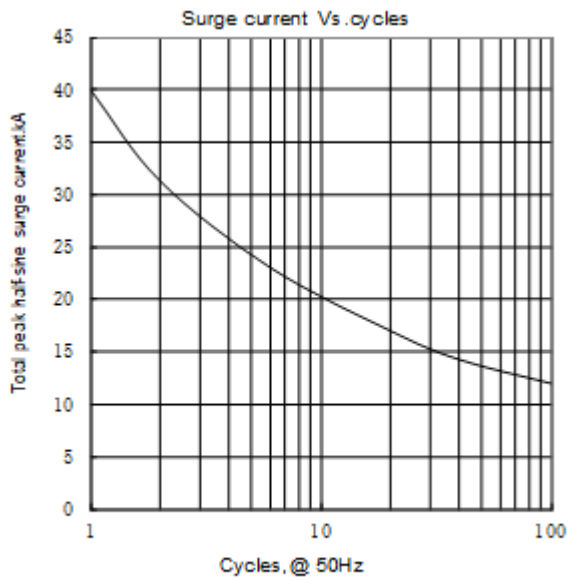
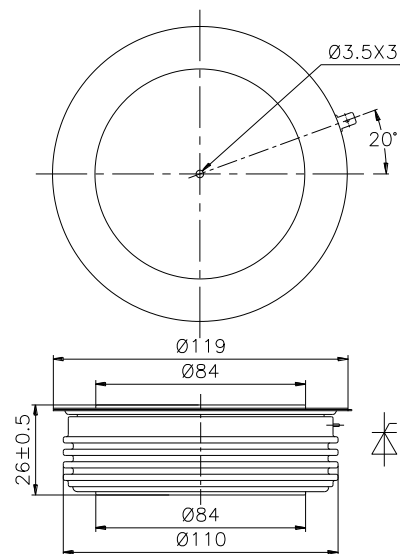


Fig.3



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