

Features

- Low forward voltage drop
- Soft recovery
- Hermetic metal cases with ceramic insulators

$I_{F(AV)}$ **1600A**
 V_{RRM} **4000~5000V**
 t_{rr} **12.0 μ s**

**Typical Applications**

- Inverters and choppers
- Motor control
- Snubber 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			1600	A	
V_{RRM}	Repetitive peak reverse voltage	$t_p=10\text{ms}$	125	4000		5000	V	
I_{RRM}	Repetitive peak current	at V_{RRM}	125			200	mA	
I_{FSM}	Surge forward current	10ms half sine wave	125			26	kA	
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				3380	$\text{A}^2\text{s} \cdot 10^3$	
V_{FO}	Threshold voltage		125			1.68	V	
r_F	Forward slope resistance					0.30	m Ω	
V_{FM}	Peak forward voltage	$I_{FM}=3000\text{A}$, $F=34\text{kN}$	125			2.90	V	
I_{rm}	Reverse recovery current		125		330		A	
t_{rr}	Reverse recovery time	$I_{FM}=2000\text{A}$, $t_p=2000\mu\text{s}$, $-di/dt=60\text{A}/\mu\text{s}$, $V_R=50\text{V}$				12		μs
Q_{rr}	Recovery charge					1700		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	DC double side cooled				0.012	$^{\circ}\text{C}/\text{W}$	
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 34kN				0.003		
F_m	Mounting force			30		40	kN	
T_{stg}	Stored temperature			-40		160	$^{\circ}\text{C}$	
W_t	Weight				820		g	
Outline	P44							

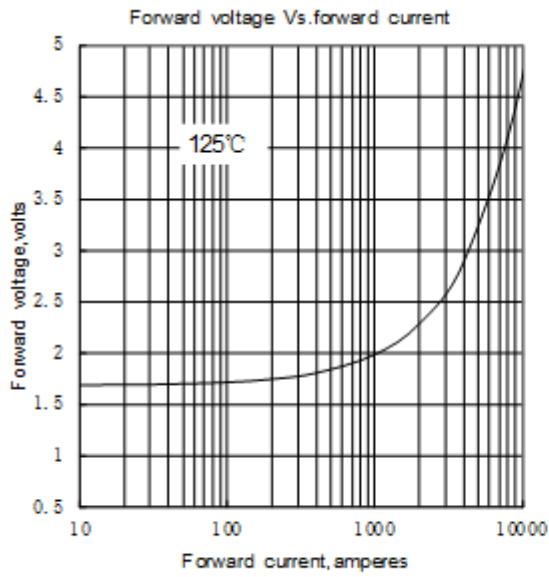


Fig.1

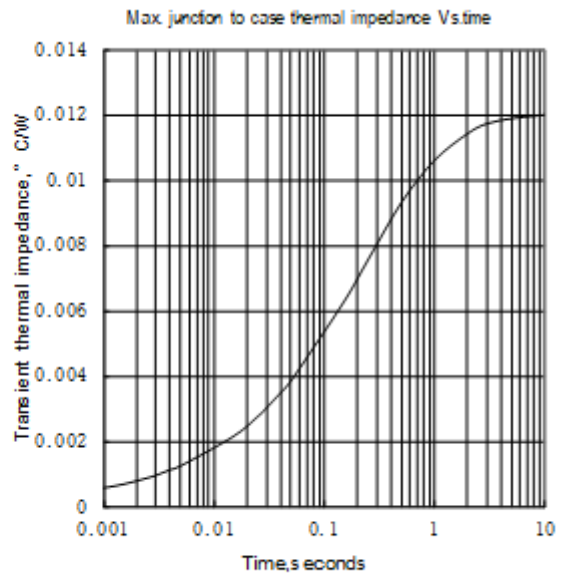


Fig.2

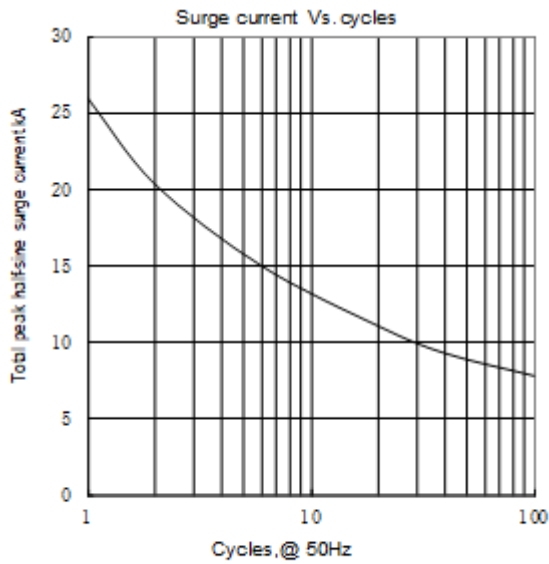
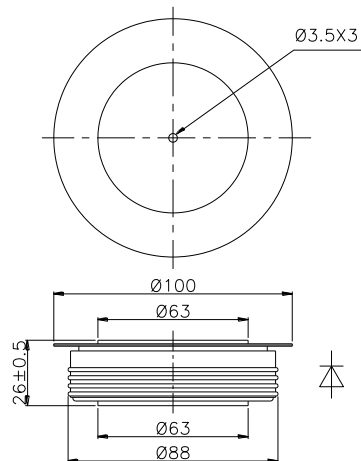


Fig.3



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