

Features

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

$I_{F(AV)}$ **630A**
 V_{RRM} **2100~3000V**
 t_{rr} **4.0 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			630	A
V_{RRM}	Repetitive peak reverse voltage	$t_p=10\text{ms}$		125	2100		3000	V
I_{RRM}	Repetitive peak current	at V_{RRM}		125			40	mA
I_{FSM}	Surge forward current	10ms half sine wave		125			8.5	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					361	$\text{A}^2\text{s}\cdot 10^3$
V_{FO}	Threshold voltage			125			1.78	V
r_F	Forward slope resistance						0.45	m Ω
V_{FM}	Peak forward voltage	$I_{FM}=1000\text{A}$, $F=15\text{kN}$		125			2.23	V
I_{rm}	Reverse recovery current	$I_{FM}=1000\text{A}$, $t_p=2000\mu\text{s}$,		125		80		A
t_{rr}	Reverse recovery time	$-di/dt=60\text{A}/\mu\text{s}$,				4		μs
Q_{rr}	Recovery charge	$V_R=50\text{V}$				120		μC
$R_{th(j-c)}$	Thermal resistance Junction to case	DC: double side cooled Clamping force 15kN					0.035	$^{\circ}\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.008	
F_m	Mounting force				10		20	kN
T_{stg}	Stored temperature				-40		160	$^{\circ}\text{C}$
W_t	Weight					240		g
Outline	P39							

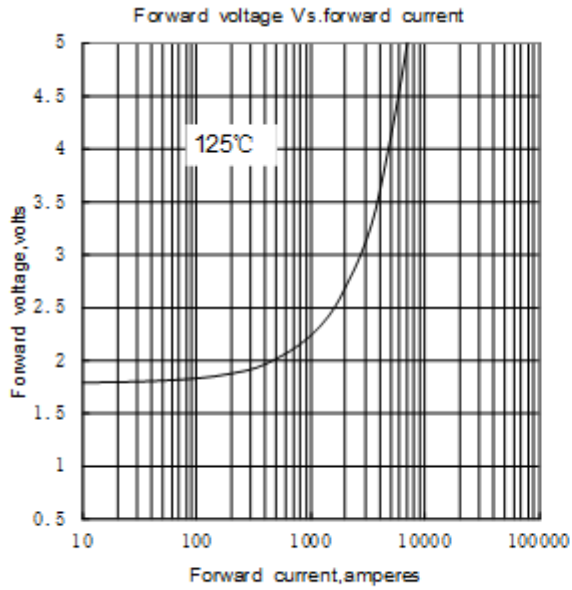


Fig.1

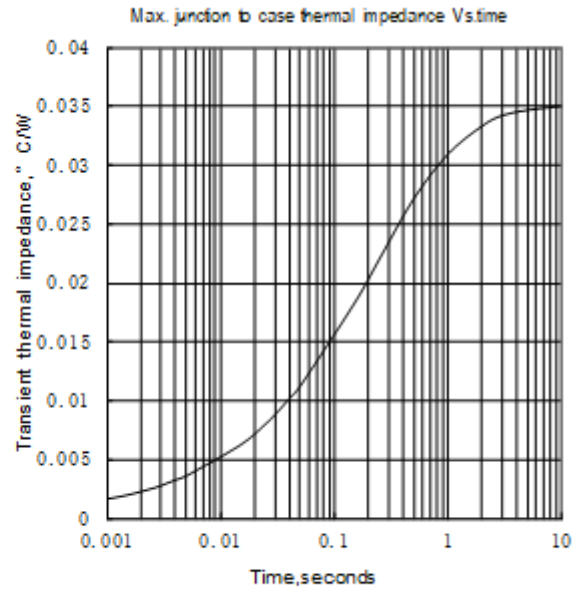


Fig.2

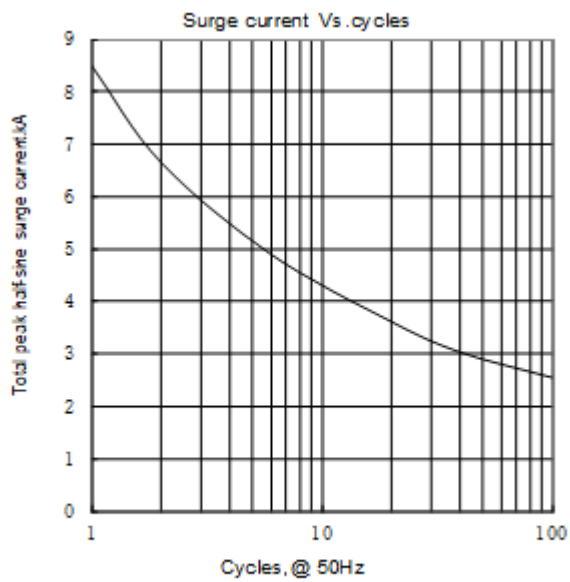
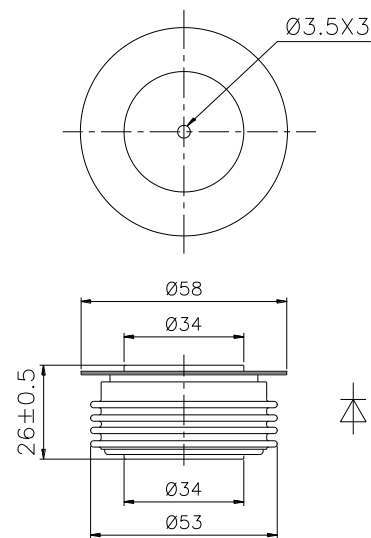


Fig.3



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