

**Features**

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

**$I_{F(AV)}$  1110 A**  
 **$V_{RRM}$  2100~3000V**  
 **$t_{rr}$  7.0 $\mu$ 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			1110	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			80	mA
$I_{FSM}$	Surge forward current	10ms half sine wave		125			16	kA
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$					1280	$\text{A}^2\text{s} \cdot 10^3$
$V_{FO}$	Threshold voltage			125			1.40	V
$r_F$	Forward slope resistance						0.39	m $\Omega$
$V_{FM}$	Peak forward voltage	$I_{FM}=1500\text{A}$ , $F=24\text{kN}$		125			1.99	V
$I_{rm}$	Reverse recovery current			125		166		A
$t_{rr}$	Reverse recovery time	$I_{FM}=1000\text{A}$ , $t_p=2000\mu\text{s}$ , $-di/dt=60\text{A}/\mu\text{s}$ , $V_R=50\text{V}$				7		$\mu\text{s}$
$Q_{rr}$	Recovery charge					500		$\mu\text{C}$
$R_{th(j-c)}$	Thermal resistance Junction to case	DC double side cooled					0.020	$^{\circ}\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 24kN					0.005	
$F_m$	Mounting force				19		26	kN
$T_{stg}$	Stored temperature				-40		160	$^{\circ}\text{C}$
$W_t$	Weight					440		g
Outline	P42							

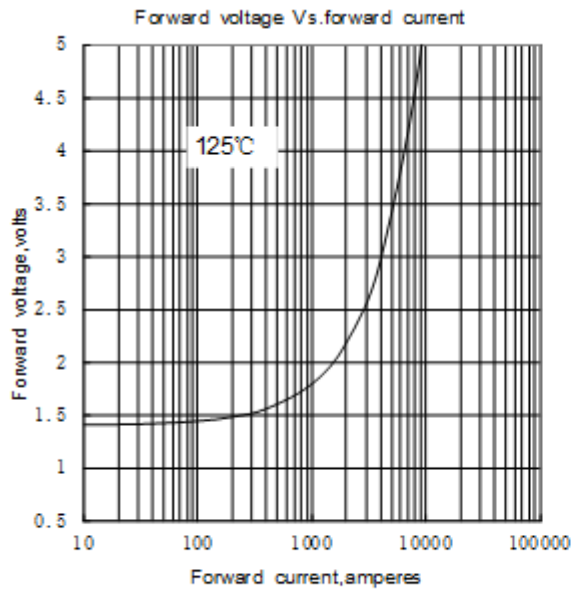


Fig.1

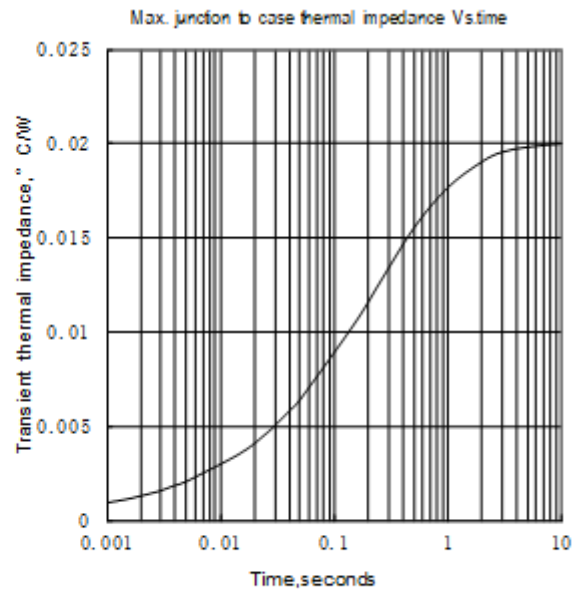


Fig.2

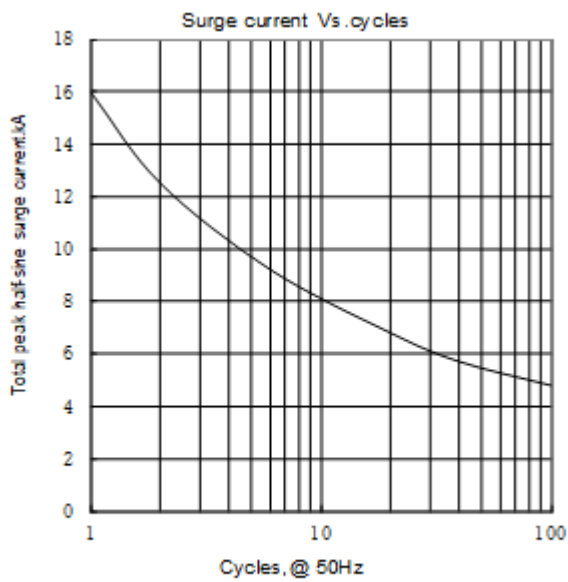
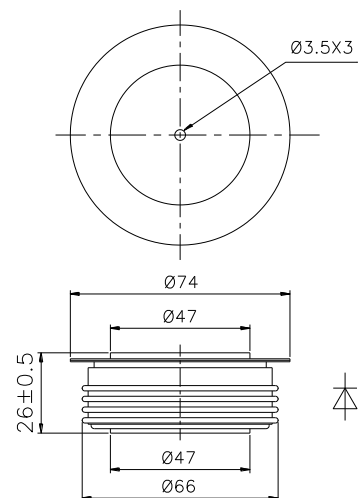


Fig.3



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