

**Features**

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

$I_{F(AV)}$       **1940A**  
 $V_{RRM}$         **4000~5000V**  
 $t_{rr}$             **12.0 $\mu$ 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			1940	A	
$V_{RRM}$	Repetitive peak reverse voltage	tp=10ms		125	4000		5000	V	
$I_{RRM}$	Repetitive peak current	at $V_{RRM}$		125			250	mA	
$I_{FSM}$	Surge forward current	10ms half sine wave		125			27	kA	
$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$					3645	$\text{A}^2\text{s} \times 10^3$	
$V_{FO}$	Threshold voltage			125			1.65	V	
$r_F$	Forward slope resistance						0.25	m $\Omega$	
$V_{FM}$	Peak forward voltage	$I_{FM}=3000\text{A}$ , $F=40\text{kN}$		125			2.40	V	
$I_m$	Reverse recovery current			125		320		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			$\mu\text{s}$
$Q_{rr}$	Recovery charge					1900			$\mu\text{C}$
$R_{th(j-c)}$	Thermal resistance Junction to case	DC double side cooled					0.010	$^{\circ}\text{C}/\text{W}$	
$R_{th(c-h)}$	Thermal resistance case to heat sink	Clamping force 40kN					0.003		
$F_m$	Mounting force				35		47	kN	
$T_{stg}$	Stored temperature				-40		160	$^{\circ}\text{C}$	
$W_t$	Weight					1100		g	
Outline	P46								

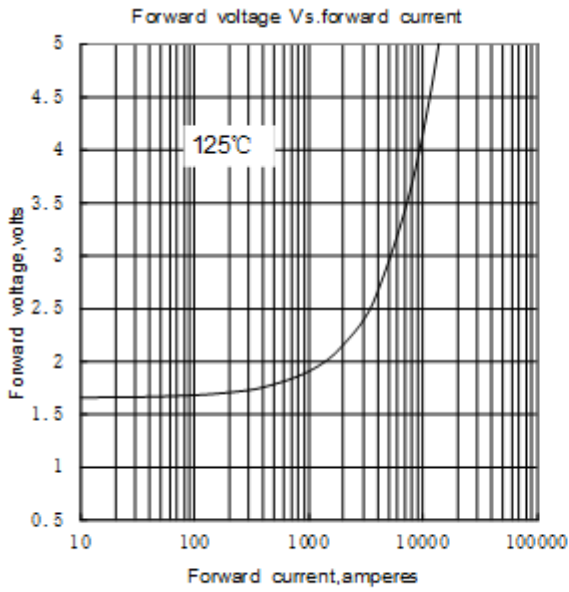


Fig.1

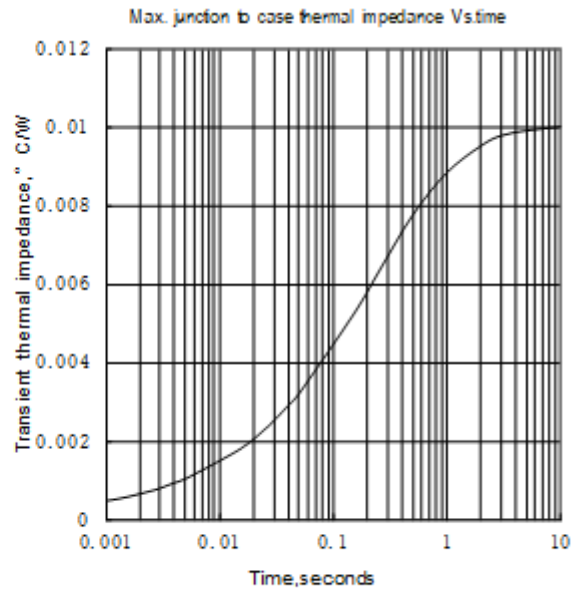


Fig.2

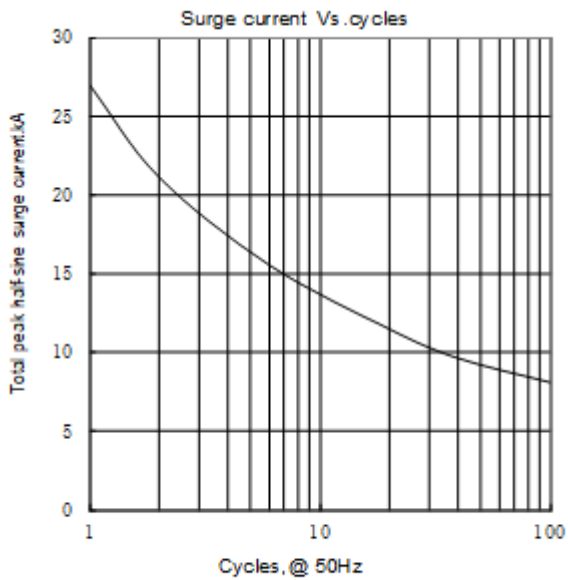
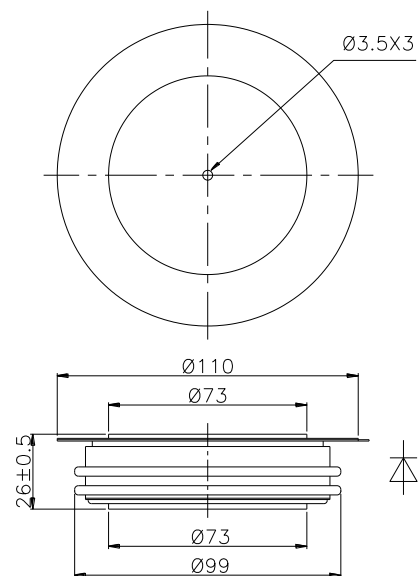


Fig.3



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