

SCD2900



Power Rectifier Diodes

Features

- Low forward voltage drop
- High reverse voltage
- Hermetic metal cases with ceramic insulators

Typical Applications

- All purpose high power rectifier diodes
- High power resistance welding equipment
- Non-controllable and half-controllable rectifiers
- Controlled rectifiers

$I_{F(AV)}$	2910A
V_{RRM}	200~1000 V
I_{FSM}	31 kA
I^2t	4805 $10^3 A^2S$

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}C)$	VALUE			UNIT	
				Min	Type	Max		
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Double side cooled,	$T_C=55^{\circ}C$	190			3410	A
			$T_C=85^{\circ}C$				2910	
V_{RRM}	Repetitive peak reverse voltage	$V_{RRM} tp=10ms$ $V_{RSM} = V_{RRM}+100V$	190	200		1000	V	
I_{RRM}	Repetitive peak current	$V_{RM} = V_{RRM}$	190			80	mA	
I_{FSM}	Surge forward current	10ms half sine wave $V_R=0.6V_{RRM}$	190			31	kA	
I^2t	I^2T for fusing coordination					4805	$A^2s \cdot 10^3$	
V_{FO}	Threshold voltage		190			0.80	V	
r_F	Forward slop resistance					0.14	m Ω	
V_{FM}	Peak on-state voltage	$I_{FM}=2000A, F=24kHz$	190			1.08	V	
Q_{rr}	Recovery charge	$I_{FM}=2000A, tp=2000\mu s, di/dt=-20A/\mu s,$ $V_R=50V$	190		3300		μC	
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 24.0kN				0.020	$^{\circ}C / W$	
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.005		
F_m	Mounting force			19		26	kN	
T_{stg}	Stored temperature			-40		190	$^{\circ}C$	
W_t	Weight				440		g	
Outline	ZT50cT							

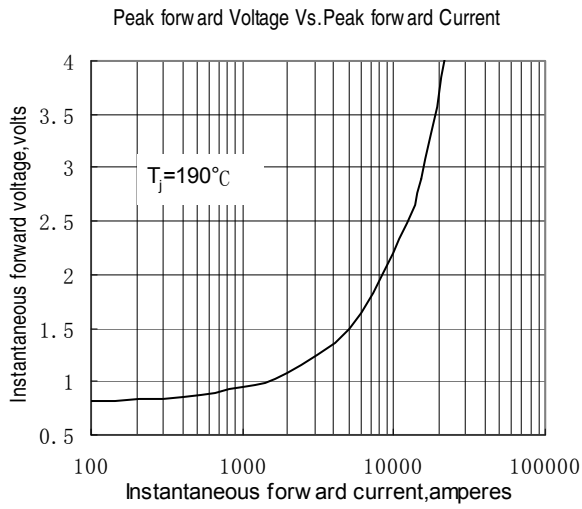


Fig.1

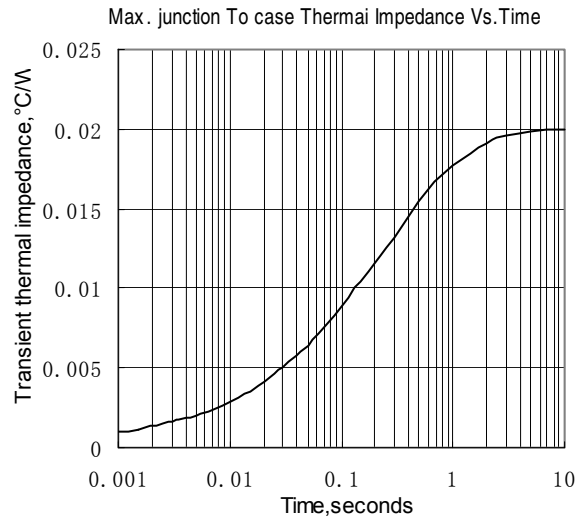


Fig.2

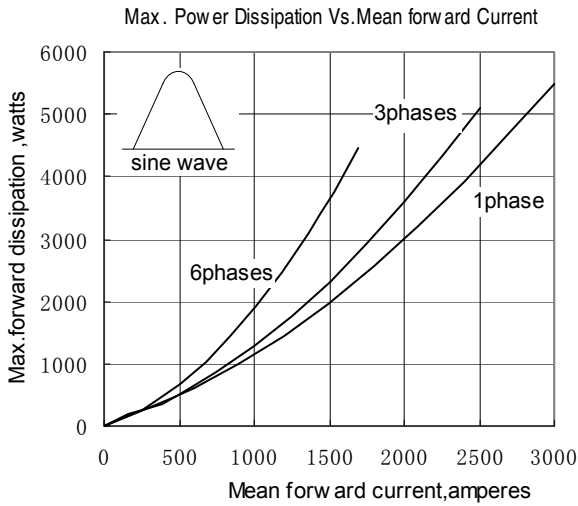


Fig.3

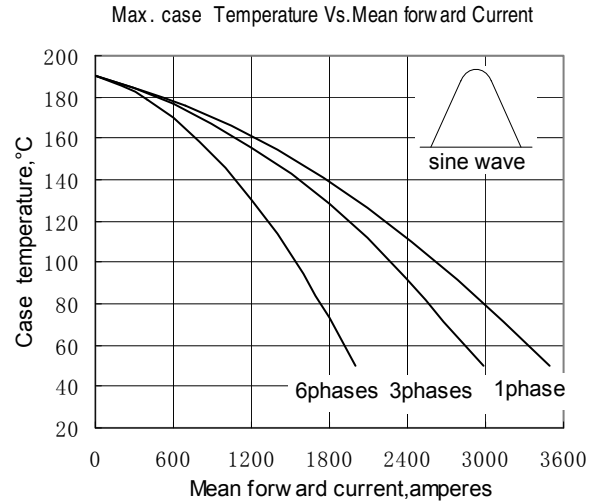


Fig.4

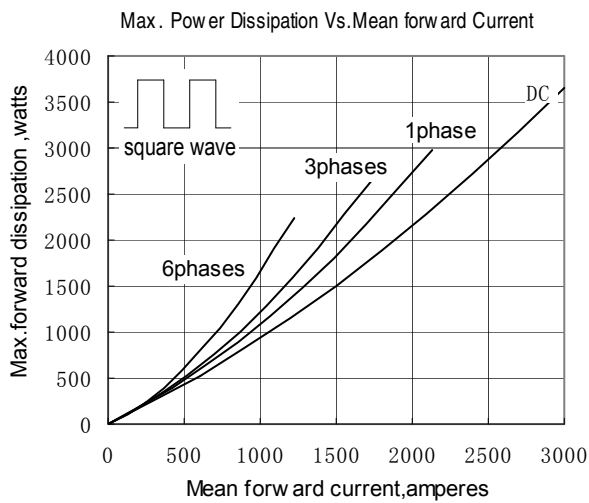


Fig.5

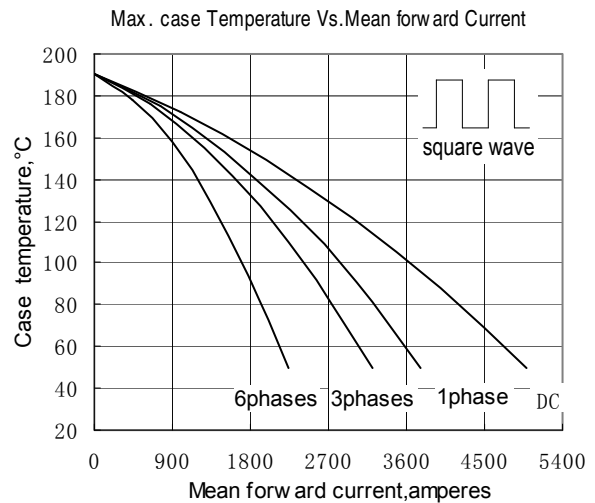


Fig.6

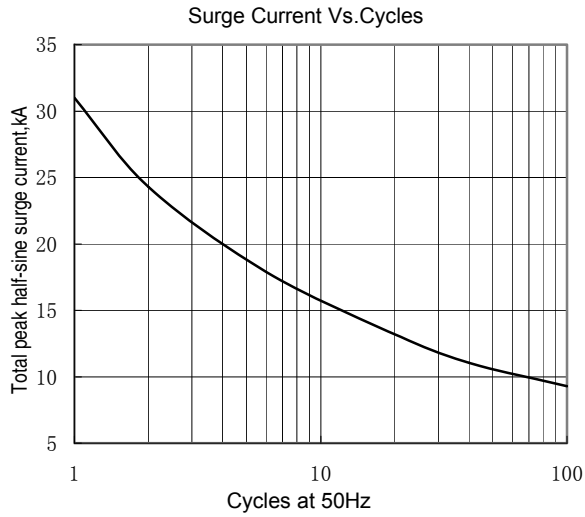


Fig.7

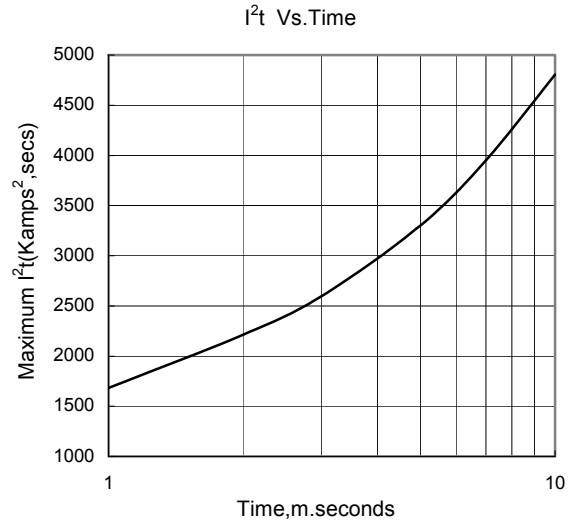


Fig.8

