ZP20A Standard Rectifer Diode

Feature

- Hermetic ceramics-metal stud structure
- Conform to national standard JB/T8949.2-1998
- Capacity of supporting high surge current
- Stud carhode and strd anode version

Typical Application

- DC motor controls Controls DC power supplie
- AC switch and thermal control Synchronous motor exditation

$I_{F(AV)}$	20A	
V_{RRM}	100-5000V	
I_{FSM}	8.25	KA
I^2t	580	A^2s

SYMBOL	CHARCTERISTIC	TEST CONDITIONS	T_J (℃)	VALUE		UNIT
				Min	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wawe，50HZ Single heat sink，T_C=98℃	150		20	A
$I_{F(RMS)}$	RMS current		150		55	A
V_{RRM}	Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DSM}&V_{RSM}=V_{DRM}&$V_{RRM+200V}$	150	100	5000	V
I_{RRM}	Repetitive peak current	V_{RM}=V_{RRM}	150		12	mA
I_{FSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	150		8.25	KA
I^2t	I^2t for fusing				580	A^2s
V_{TO}	Threshold voltage		150		0.76	V
r_T	On-state slop resistance				3.8	mΩ
V_{FM}	Peak on-state voltage	I_{TM}=30A,F=9.0KN	150		1.3	V
I_{rm}	Reverse recovery	I_{TM}=30A，tq=1000us Di/dt=-20A/us. V_r=50V	150		70	A
t_{rr}	Reverse recovery time				4.0	us
Q_{rr}	Recovered charge				140	uC
$R_{th(j-h)}$	Thermal impedance node to the shell	180 ° sine wave, single heat sink			0.090	℃/W
F_M	Mounting force				37	N
T_{stq}	Stored temperature			-65	200	℃
W_t	Weight			27		g
Outline						

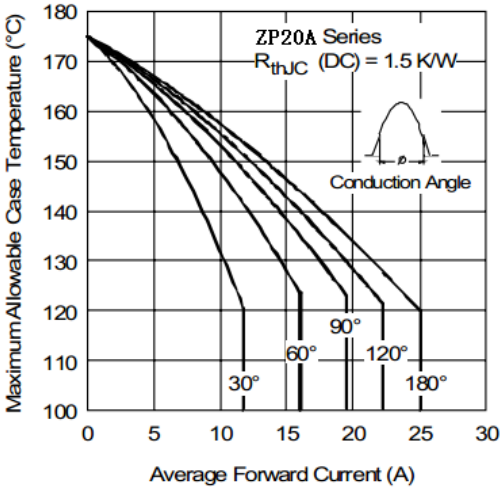


Fig. 1 - Current Ratings Characteristics

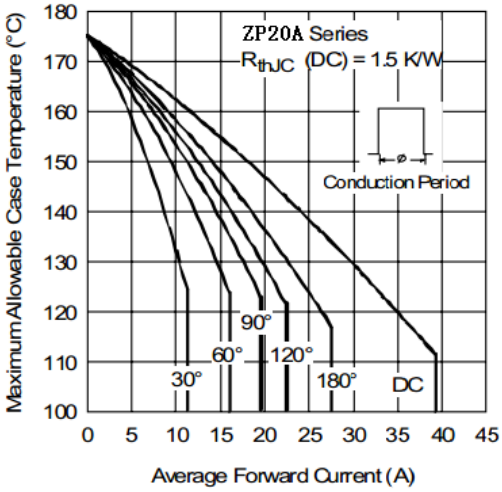
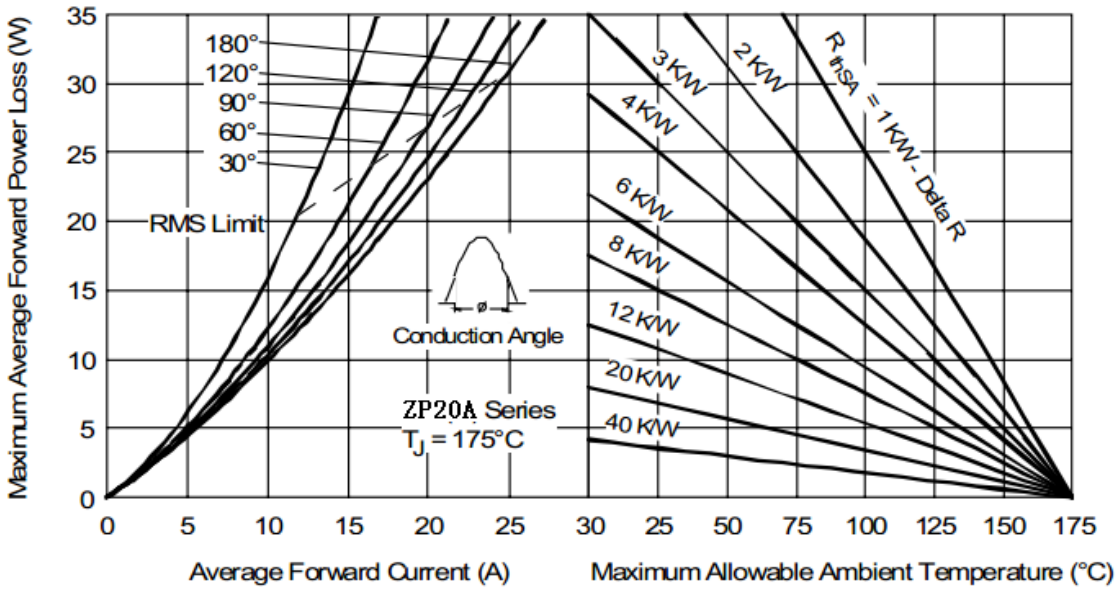


Fig. 2 - Current Ratings Characteristics



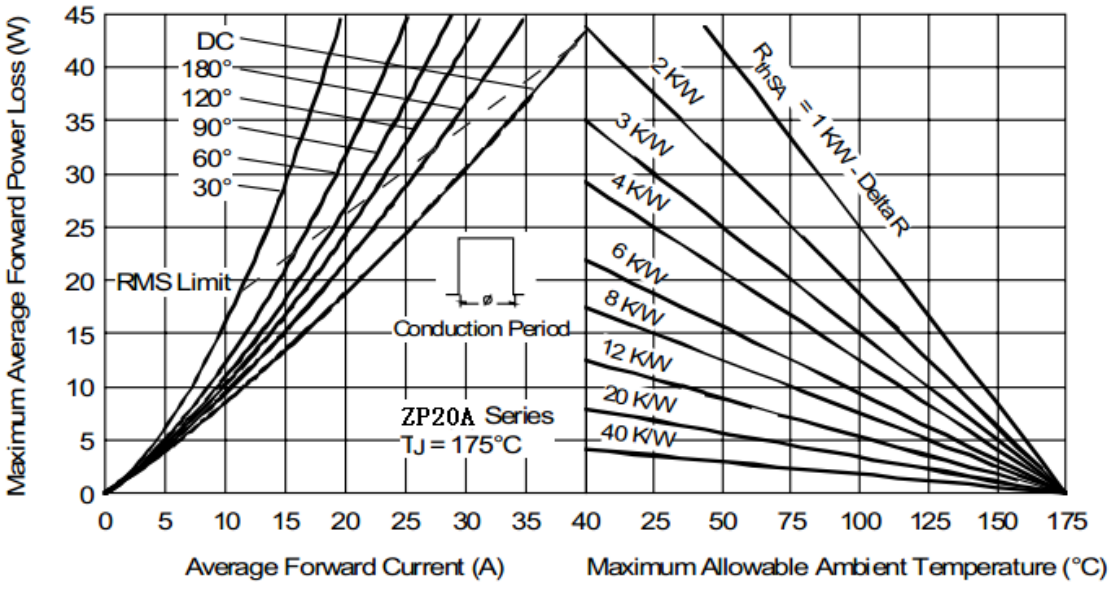


Fig. 4 - Forward Power Loss Characteristics

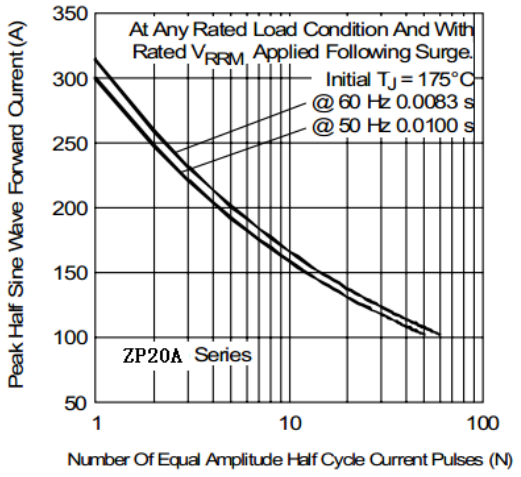


Fig. 5 - Maximum Non-Repetitive Surge Current

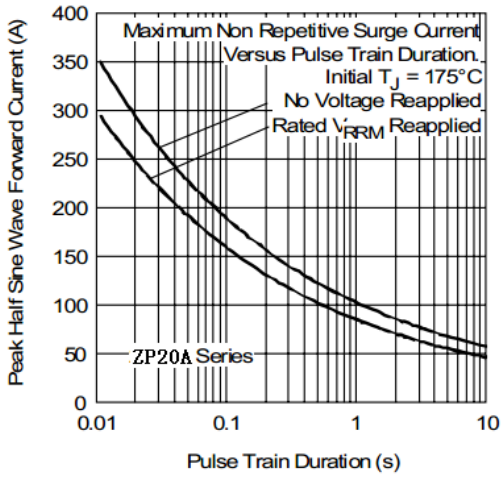


Fig. 6 - Maximum Non-Repetitive Surge Current

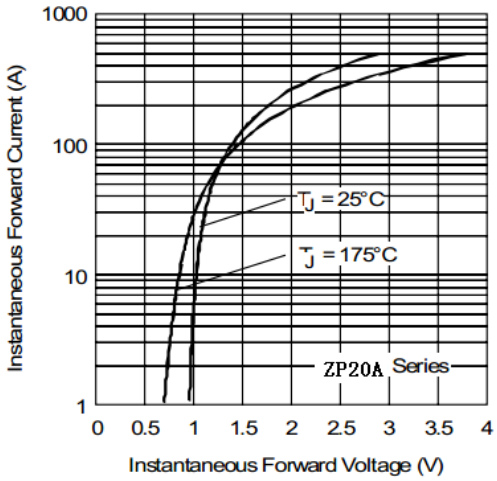


Fig. 7 - Forward Voltage Drop Characteristics

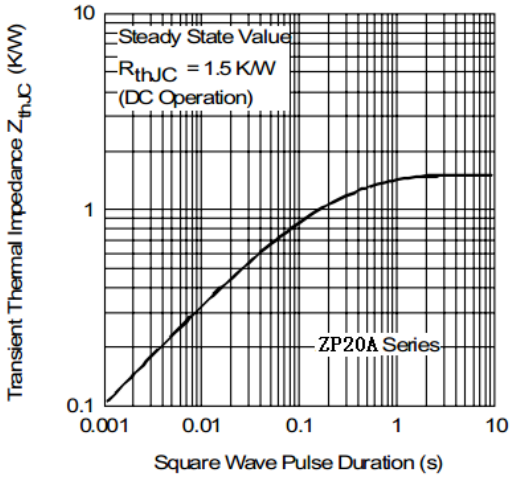
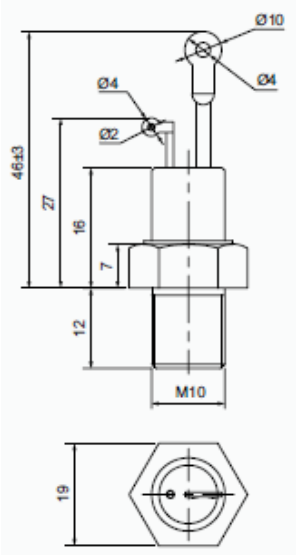
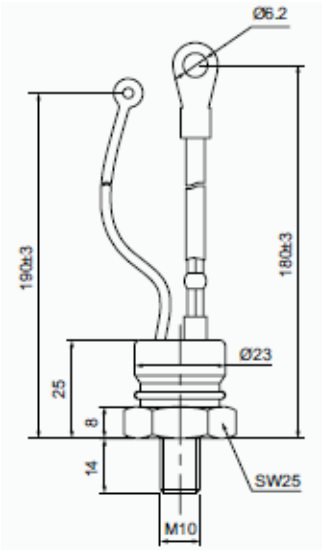


Fig. 8 - Thermal Impedance Z_{thJC} Characteristics

Outline:



1



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