YZPST® Yangzhou Positioning Tech. Co., Ltd

Technical Data

PST ZP2004

RECTIFIER DIODE

Features

- Blocking Capability up to 2600 V
- High Surge Rating
- Rugged Ceramic Hermetic Package

ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	V_{RRM}		2600		V	Tj = -40 °C to 175 °C
Non repetitive peak reverse voltage	V_{RSM}		2700		V	Tj = -40 °C to 175 °C
Repetitive peak reverse current	I_{RRM}		50		mA	Tj = Tjmax , V = V_{RRM}

Conducting

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		2490		A	50 Hz sinewave,180° conduction, Tc = 85 °C
RMS value of forward current	$I_{F(RMS)}$		3910		A	50 Hz sinewave,180° conduction, Tc = 85 °C
Peak one cycle surge (non repetitive) current	I_{FSM}		28		kA	50 Hz sinewave,180° conduction, Tj = Tjmax, VR = 0
I square t	I^2t		3920		kA^2s	Tj = Tjmax
Peak forward voltage	V_{FM}		1.30		V	Forward current 2900 A, Tj = Tjmax
Threshold voltage	$V_{F(TO)}$		0.82		V	Tj = Tjmax
Forward slope resistance	r_F		0.16		mΩ	Tj = Tjmax

Thermal and mechanical characteristics and ratings

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	175		°C	
Storage temperature	T_{stg}	-40	175		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.020		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.006		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	F	18	20		kN	
Weight	W			460	g	

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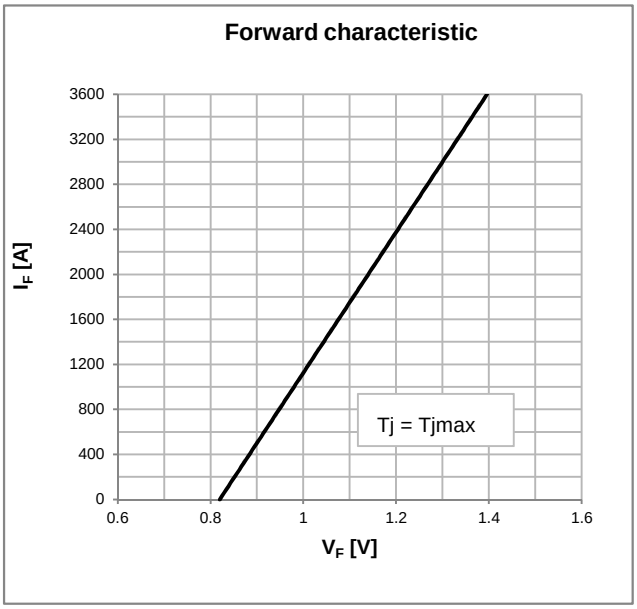
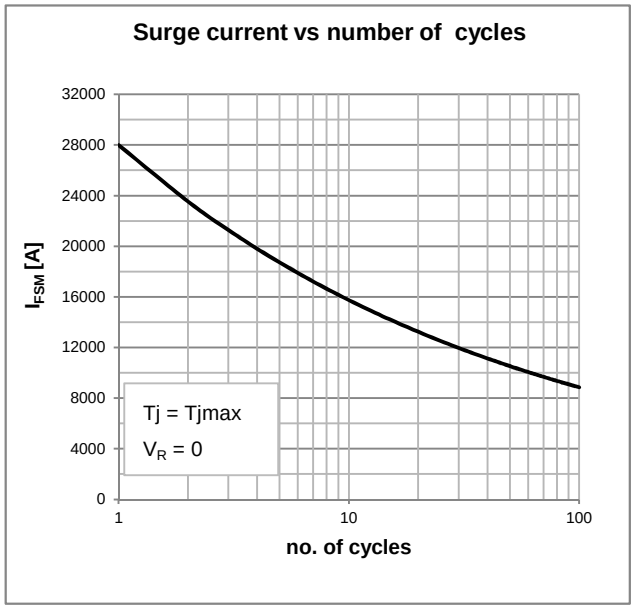
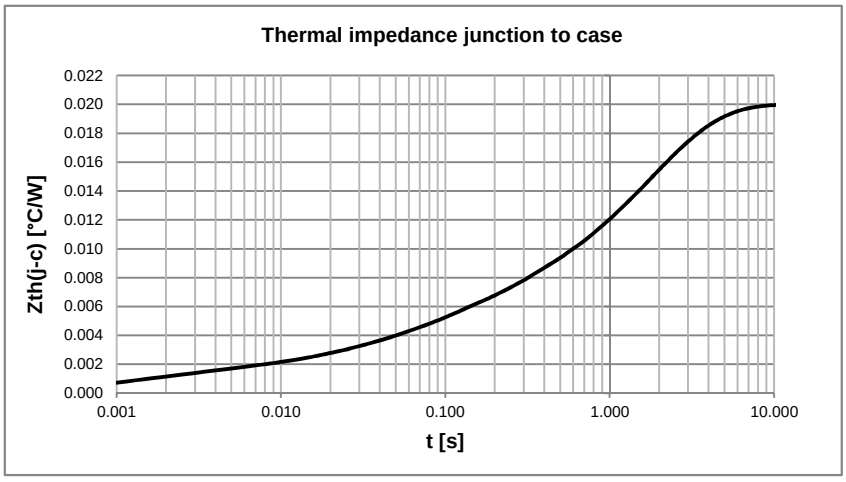
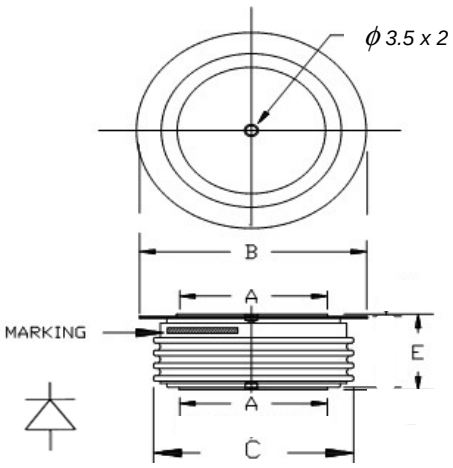






OUTLINE AND DIMENSIONS



	A	B	C	E
mm	47	75	66	26 ± 0.5

- All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink surfaces with flatness < 0.03 mm and roughness < 2µm