YZPST® Yangzhou Positioning Tech. Co., Ltd

Technical Data

PST ZP302

RECTIFIER DIODE

Features

- Blocking Capability up to 800 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}		800		V	Tj = -40 °C to 190 °C
Non repetitive peak reverse voltage	V_{RSM}		900		V	Tj = -40 °C to 190 °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	$I_{F(AV)}$		1680		A	50 Hz sinewave,180° conduction, Tc = 85 °C
RMS value of forward current	$I_{F(RMS)}$		2638		A	50 Hz sinewave,180° conduction, Tc = 85 °C
Peak one cycle surge (non repetitive) current	I_{FSM}		16		kA	50 Hz sinewave,180° conduction, Tj = Tjmax, VR = 0
I square t	I^2t		1280		kA^2s	Tj = Tjmax
Peak forward voltage	V_{FM}		1.50		V	Forward current 3000 A, Tj = Tjmax
Threshold voltage	$V_{F(TO)}$		0.72		V	Tj = Tjmax
Forward slope resistance	r_F		0.26		mΩ	Tj = Tjmax

Thermal and mechanical characteristics and ratings

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	190		°C	
Storage temperature	T_{stg}	-40	190		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.035		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.015		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	F	8	10		kN	
Weight	W			85	g	

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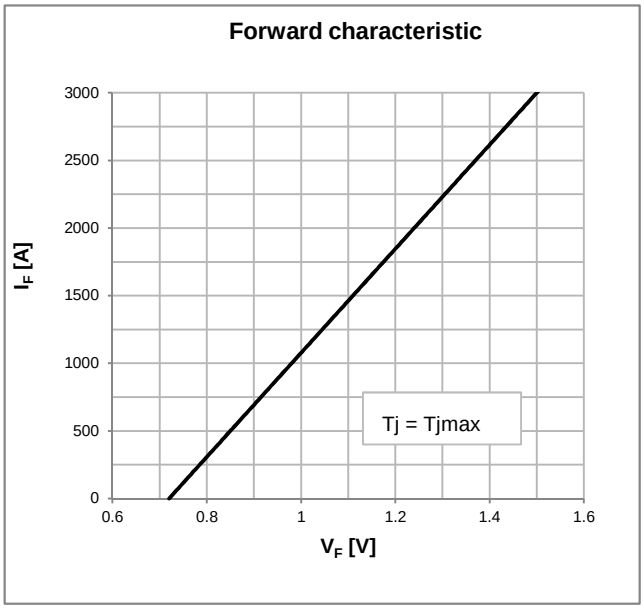
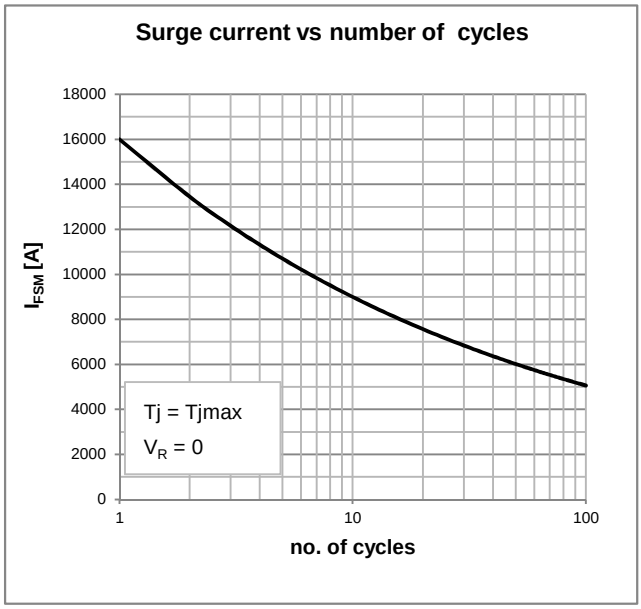
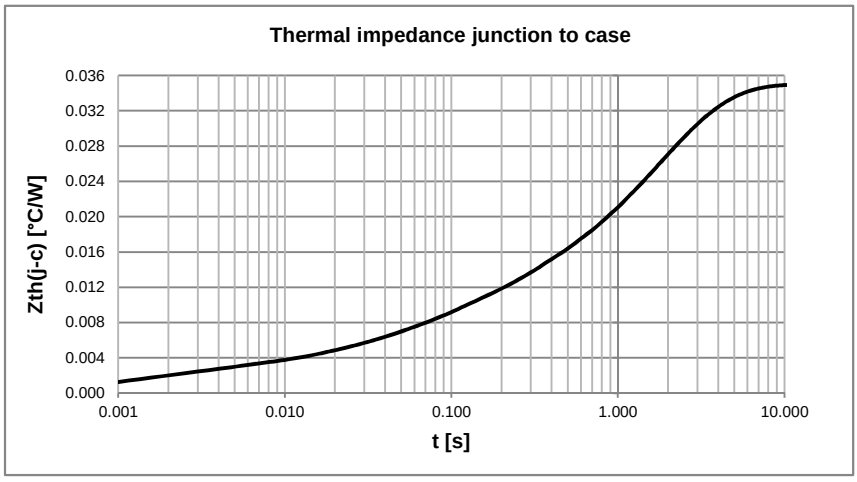
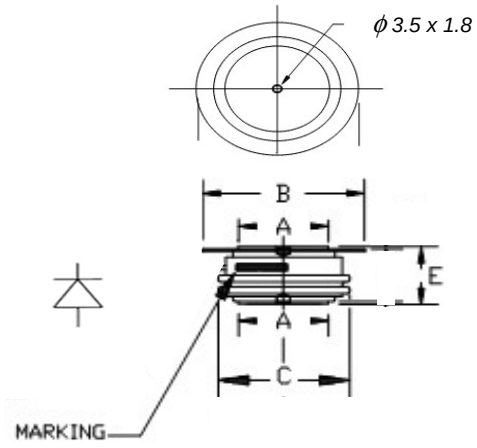






OUTLINE AND DIMENSIONS



	A	B	C	E
mm	25	42	40	14 ± 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