Technical Data

PST ZP772

RECTIFIER DIODE

Features

- Blocking Capability up to 4600 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}		4600		V	Tj = -40 °C to 175 °C
Non repetitive peak reverse voltage	V_{RSM}		4600		V	Tj = -40 °C to 175 °C
Repetitive peak reverse current	I_{RRM}		200		mA	Tj = Tjmax , V = V_{RRM}

Conducting

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		4020		A	50 Hz sinewave,180° conduction, Tc = 85 °C
RMS value of forward current	$I_{F(RMS)}$		6300		A	50 Hz sinewave,180° conduction, Tc = 85 °C
Peak one cycle surge (non repetitive) current	I_{FSM}		45		kA	50 Hz sinewave,180° conduction, Tj = Tjmax, VR = 0
I square t	$I^2 t$		10125		kA^2s	Tj = Tjmax
Peak forward voltage	V_{FM}		1.3		V	Forward current 3000 A, Tj = Tjmax
Threshold voltage	$V_{F(TO)}$		0.75		V	Tj = Tjmax
Forward slope resistance	r_F		0.175		mΩ	Tj = Tjmax

Thermal and mechanical characteristics and ratings

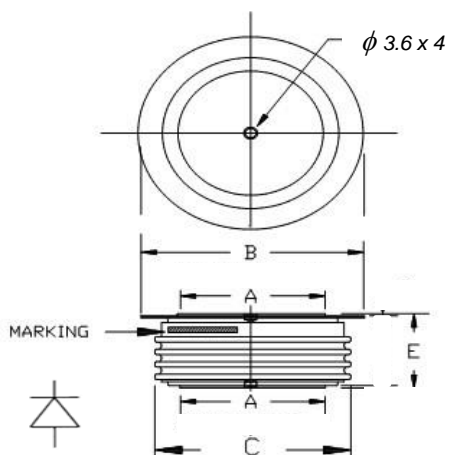| Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	175		°C	
Storage temperature	T_{stg}	-40	175		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.009		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.002		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	F	46	54		kN	
Weight	W			1700	g	

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Forward characteristic

I_F [A]

Tj = Tjmax

V_F [V]

Surge current vs number of cycles

I_{FSM} [A]

Tj = Tjmax

V_R = 0

no. of cycles

Thermal impedance junction to case

Zth(j-c) [°C/W]

t [s]
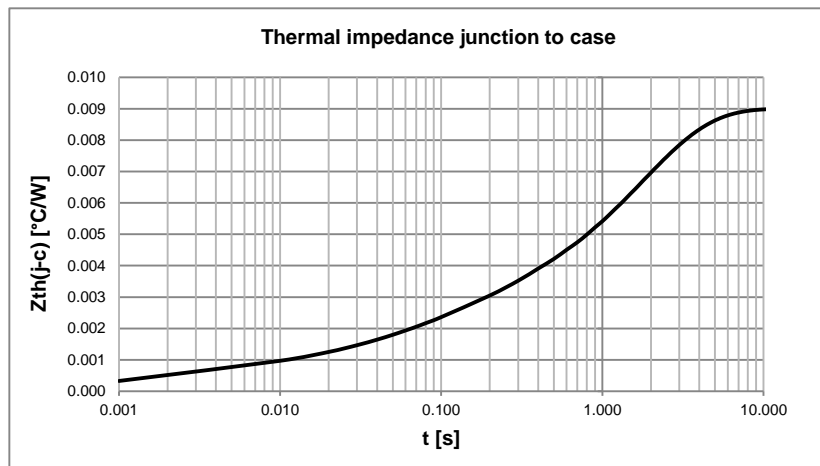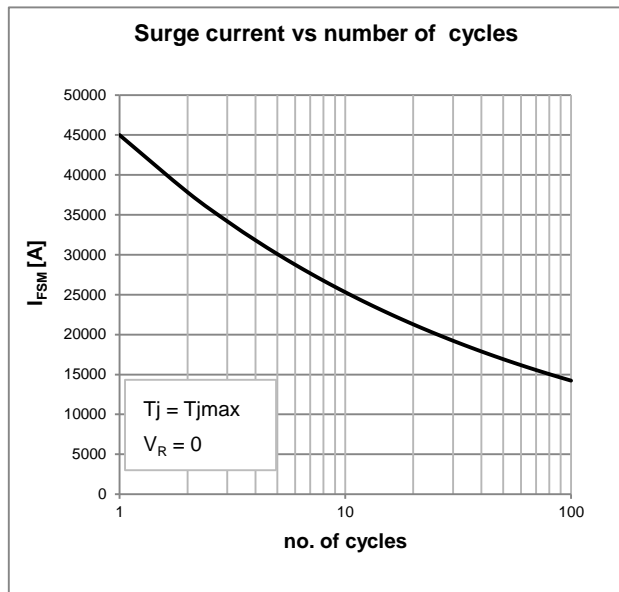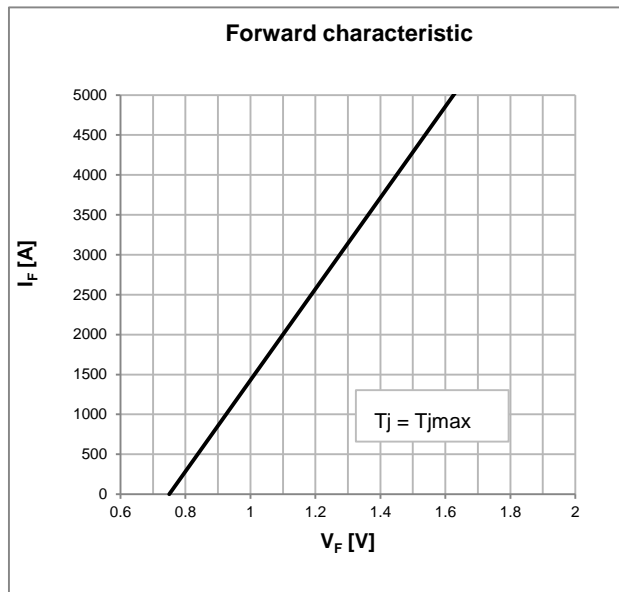
OUTLINE AND DIMENSIONS

ϕ 3.6 x 4

B

A

MARKING

E

A

C

	A	B	C	E
mm	85	118	109	35 ± 2

*- 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*