



PST ZP85A(B)

RECTIFIER DIODE

Features

- Blocking Capability up to 1600 V
- High Surge Rating
- Stud Cathode and Stud Anode Version

ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	V_{RRM}		1600		V	$T_j = -40 \text{ }^{\circ}\text{C} \text{ to } 150 \text{ }^{\circ}\text{C}$
Non repetitive peak reverse voltage	V_{RSM}		1700		V	$T_j = -40 \text{ }^{\circ}\text{C} \text{ to } 150 \text{ }^{\circ}\text{C}$
Repetitive peak reverse current	I_{RRM}		10		mA	$T_j = T_{jmax}, V = V_{RRM}$

Conducting

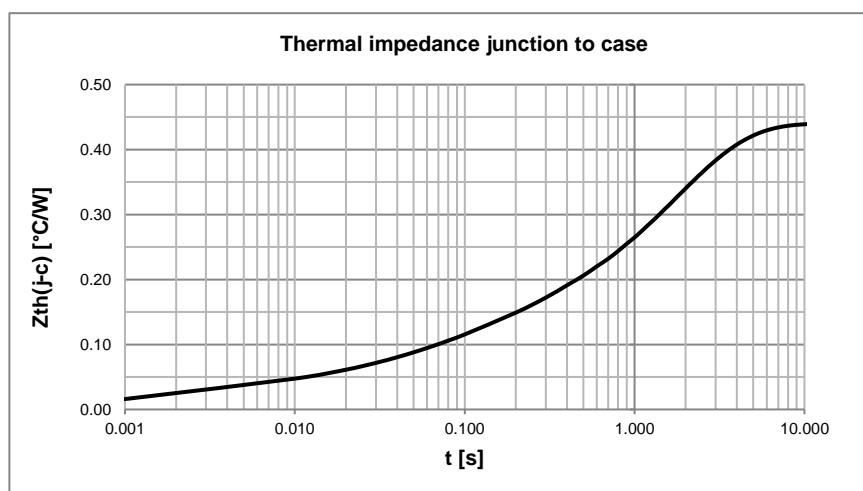
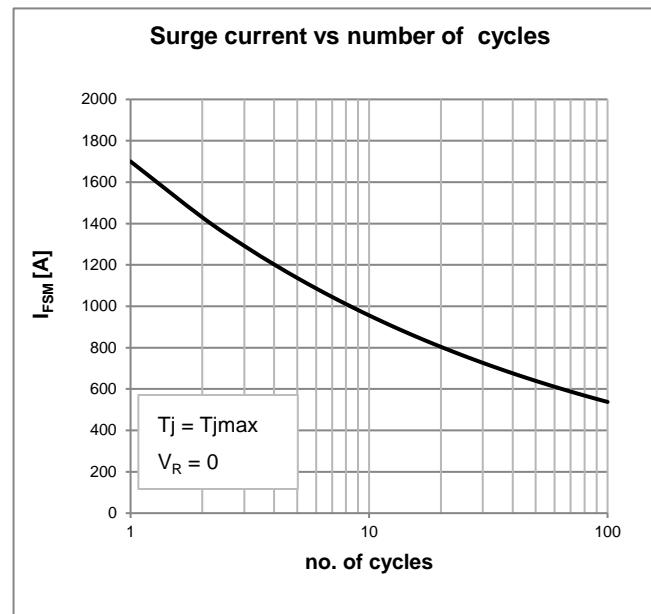
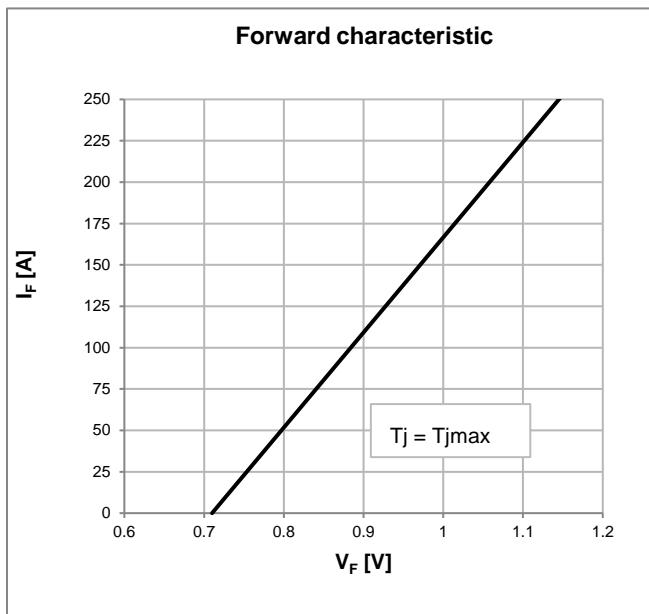
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		85		A	50 Hz sinewave, 180° conduction, $T_c = 110 \text{ }^{\circ}\text{C}$
RMS value of forward current	$I_{F(RMS)}$		135		A	50 Hz sinewave, 180° conduction, $T_c = 110 \text{ }^{\circ}\text{C}$
Peak one cycle surge (non repetitive) current	I_{FSM}		1.7		kA	50 Hz sinewave, 180° conduction, $T_j = T_{jmax}, V_R = 0$
$I^2 t$	$I^2 t$		14.5		$\text{kA}^2 \text{s}$	$T_j = T_{jmax}$
Peak forward voltage	V_{FM}		1.20		V	Forward current 280 A, $T_j = T_{jmax}$
Threshold voltage	$V_{F(TO)}$		0.71		V	$T_j = T_{jmax}$
Forward slope resistance	r_F		1.74		$\text{m}\Omega$	$T_j = T_{jmax}$

Thermal and mechanical characteristics and ratings

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	150		$^{\circ}\text{C}$	
Storage temperature	T_{stg}	-40	150		$^{\circ}\text{C}$	
Thermal resistance junction to case	$R_{th(j-c)}$		0.44		$^{\circ}\text{C/W}$	180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.25		$^{\circ}\text{C/W}$	Mounting surfaces smooth, flat and greased
Mounting torque	M	2.2	3.4		N·m	
Weight	W			18	g	

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OUTLINE AND DIMENSIONS

