

**PST ZK340*****FAST RECOVERY DIODE*****Features**

- Blocking Capability up to 2600 V
- Soft Reverse Recovery
- Rugged Ceramic Hermetic Package

ELECTRICAL CHARACTERISTICS AND RATINGS**Blocking**

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	V_{RRM}		2600		V	$T_j = -40 \text{ }^\circ\text{C} \text{ to } 150 \text{ }^\circ\text{C}$
Non repetitive peak reverse voltage	V_{RSM}		2700		V	$T_j = -40 \text{ }^\circ\text{C} \text{ to } 150 \text{ }^\circ\text{C}$
Repetitive peak reverse current	I_{RRM}		50		mA	$T_j = T_{jmax}, V = V_{RRM}$

Conducting

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		765		A	50 Hz sinewave, 180° conduction, $T_c = 85 \text{ }^\circ\text{C}$
RMS value of forward current	$I_{F(RMS)}$		1200		A	50 Hz sinewave, 180° conduction, $T_c = 85 \text{ }^\circ\text{C}$
Peak one cycle surge (non repetitive) current	I_{FSM}		6.5		kA	50 Hz sinewave, 180° conduction, $T_j = T_{jmax}, V_R = 0$
$I^2 t$	$I^2 t$		211		kA ² s	$T_j = T_{jmax}$
Peak forward voltage	V_{FM}		1.94		V	Forward current 1200 A, $T_j = T_{jmax}$
Threshold voltage	$V_{F(TO)}$		1.10		V	$T_j = T_{jmax}$
Forward slope resistance	r_F		0.70		mΩ	$T_j = T_{jmax}$

Thermal and mechanical characteristics and ratings

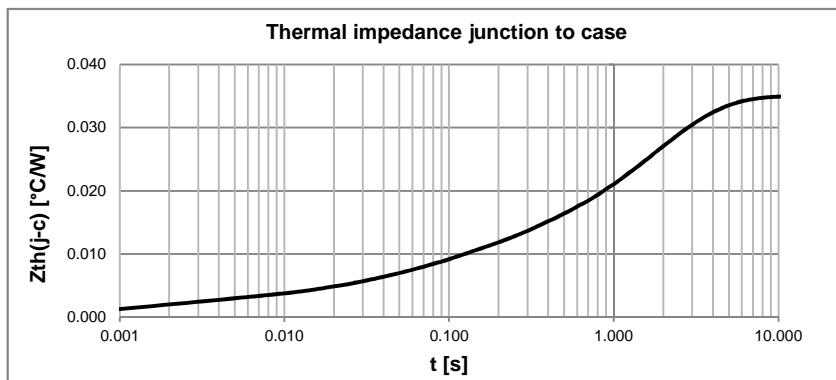
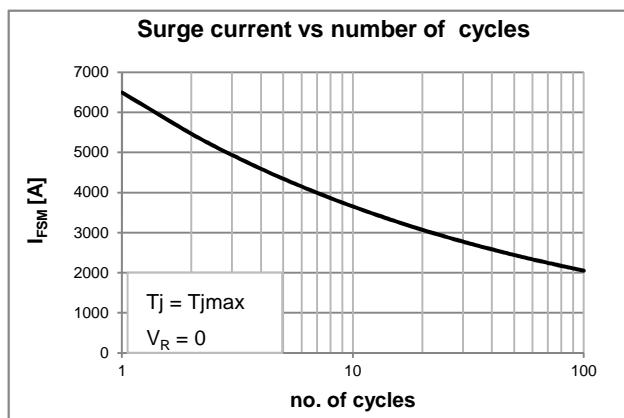
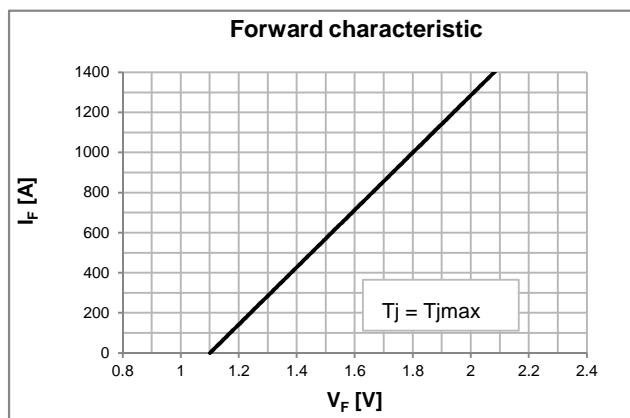
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	150		°C	
Storage temperature	T_{stg}	-40	150		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.035		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.015		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	F	8	9		kN	
Weight	W			85	g	

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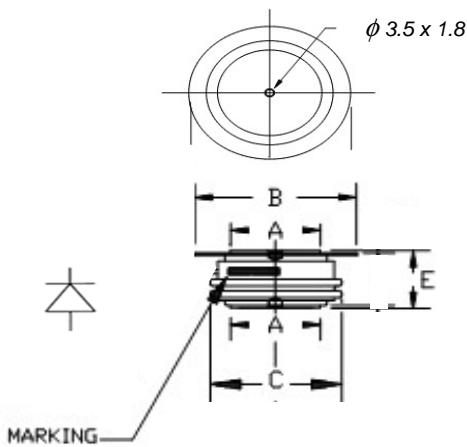
FAST RECOVERY DIODE

Switching

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Reverse recovery current	I_{rr}		140		A	$I_F = 350 \text{ A}$ $dI_F / dt = 80 \text{ A}/\mu\text{s}$ $V_R = 100 \text{ V}$ $T_j = T_{jmax}$
Reverse recovery charge	Q_{rr}		260		μC	
Reverse recovery time	t_{rr}		4.0		μs	
Softness	s	0.4				



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