

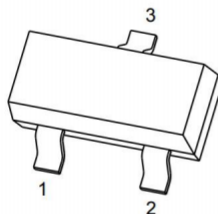
TPBAS16W

High-speed switching diode

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Features

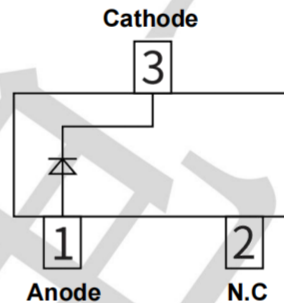
- For surface mounted applications
- Low capacitance
- Low leakage current
- RoHs Product
- Compact package: SOT-323



SOT-323

Applications

- High-speed switching
- General-purpose switching
- Polarity protection application
- Freewheeling diodes
- Voltage protector



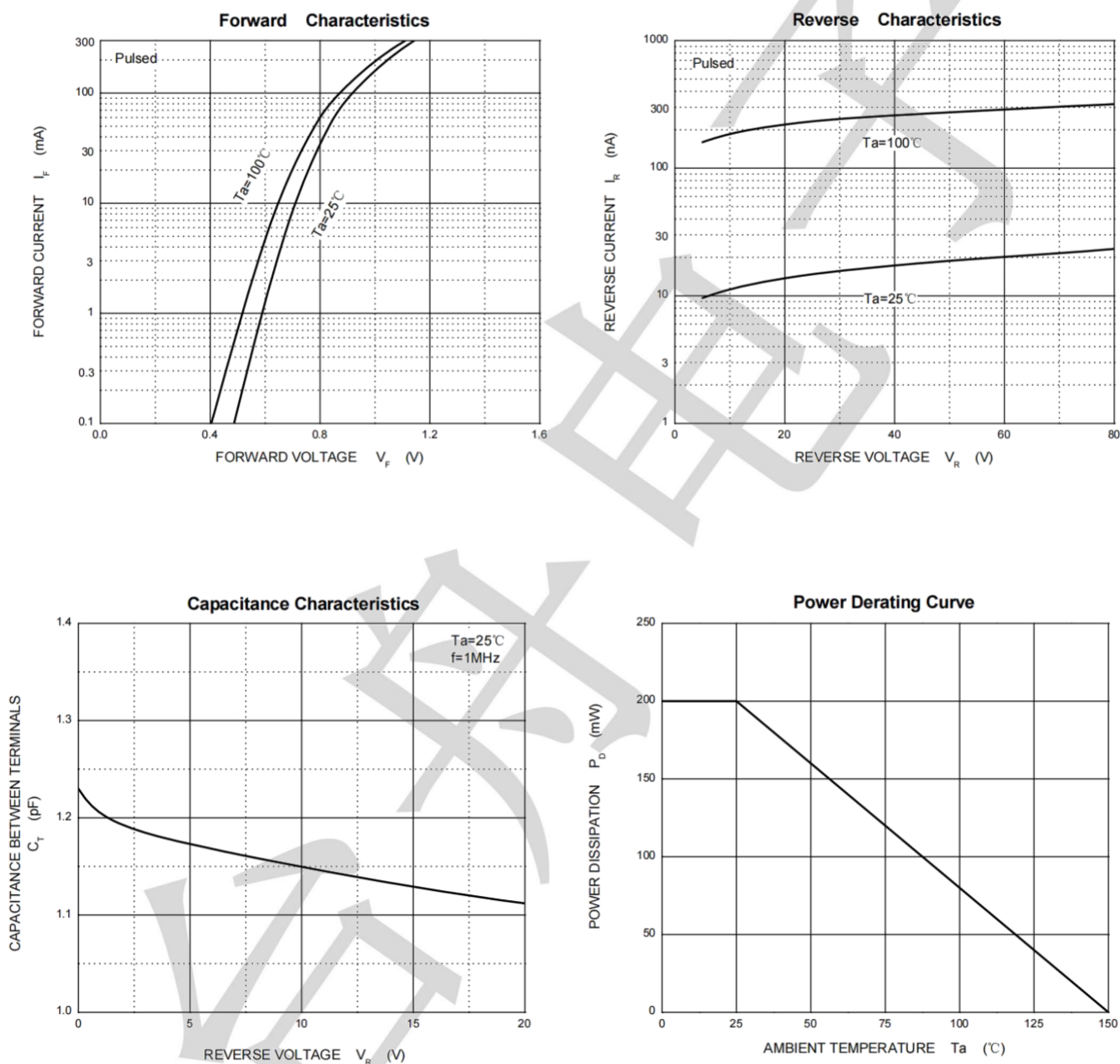
Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

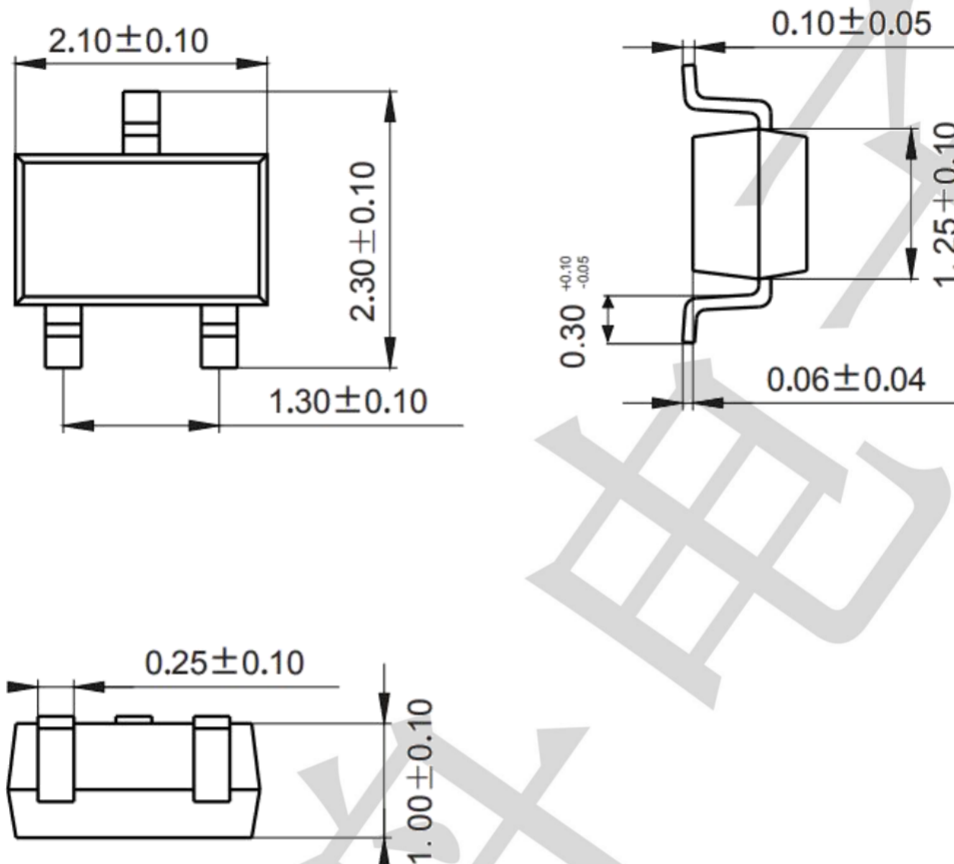
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse breakdown voltage	$V_{(BR)}$	75	--	--	V	$I_R=100\mu A$
Forward Voltage	V_F	--	--	0.855	V	$I_F=10mA$
		--	--	1.0	V	$I_F=50mA$
		--	--	1.25	V	$I_F=150mA$
Reverse Leakage	I_R	--	--	1.0	uA	$V_R=75V$
Diode capacitance	C_D	--	--	2.0	pF	$V_R = 0 V, f = 1 MHz$
Reverse recovery time	t_{rr}	--	--	6.0	ns	$I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100\Omega$

Typical Electrical Characteristic Curves



Package Outline Dimensions (unit: mm)

SOT-323



Mounting Pad Layout (unit: mm)

