

FEATURES

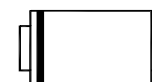
- Ultra high-speed switching
- Very low forward voltage
- Guard ring protected
- Very small SMD plastic package.



SOD-323

MECHANICAL DATA

- Case: SOD-323 Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 0.004 gram(approx.)



Cathode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	Value	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}	30	V
Average Rectified Output Current	I_F	1	A
Peak forward surge current @=8.3mS	I_{FSM}	5.0	A
Power Dissipation (Note 1)	P_d	220	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	420	°C /W
Operating and Storage Temperature Range	T_J, T_{STG}	-65~+150	°C

Electrical Characteristics @TA=25°C unless otherwise specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F		242	270	mV	$I_F = 10\text{mA}$
Forward voltage	V_F		320	350	mV	$I_F = 100\text{mA}$
Forward voltage	V_F		482	550	mV	$I_F = 1\text{A}$
Reverse current (Note 2)	I_R		3.5	10	μA	$V_R = 5\text{V}$
Reverse current	I_R		4.5	20	μA	$V_R = 8\text{V}$
Reverse current	I_R		6	50	μA	$V_R = 15\text{V}$
Capacitance between terminals	C		25		pF	$V_R = 5\text{V}, f = 1\text{MHz}$

Note: 1. Valid provided that terminals are kept at ambient temperature.

2. Short duration test pulse used to minimize self-heating effect.

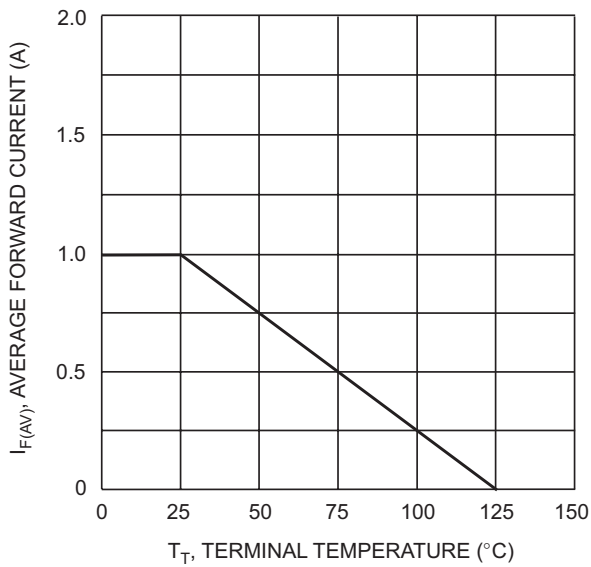
Typical Characteristics

Fig. 1 Forward Current Derating Curve

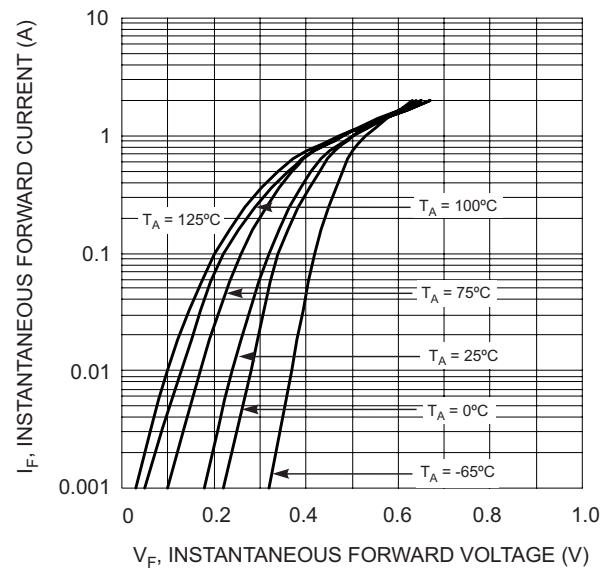


Fig. 2 Typical Forward Characteristics

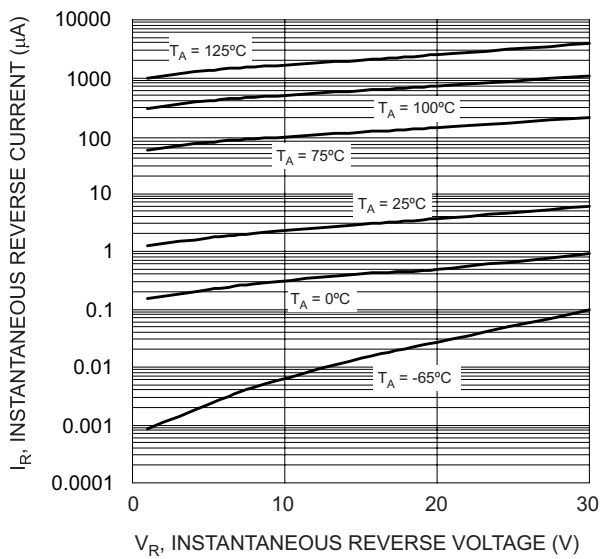


Fig. 3 Typical Reverse Characteristics

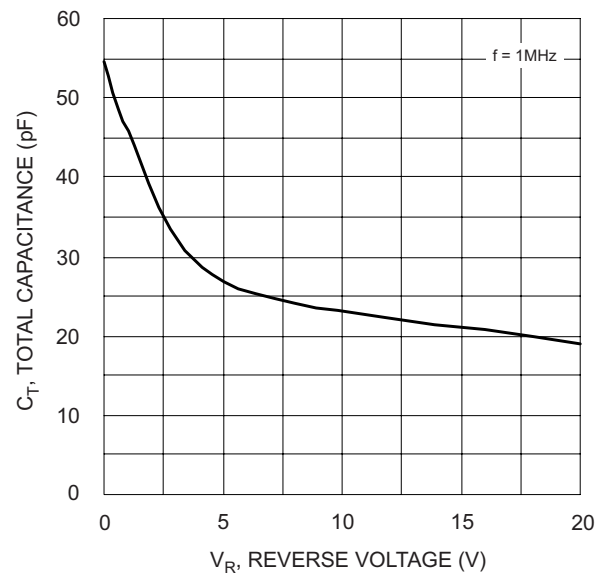


Fig. 4 Typ. Total Capacitance vs Reverse Voltage