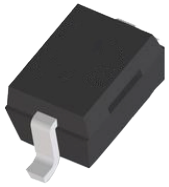
FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance



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
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	V_R	75	V
RMS Reverse Voltage	$R_{(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Peak forward surge current @=1.0μs	I_{FSM}	2.0	A
Peak forward surge current @=1.0s	I_{FSM}	1.0	A
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	650	°C /W
Operating and Storage Temperature Range	Tj, T_{STG}	-65~+150	°C

Electrical Characteristics @TA=25°C unless otherwise specified

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			0.715	V	I_F =1mA
Forward voltage	V_F			0.855	V	I_F =10 mA
Forward voltage	V_F			1.0	V	I_F =50 mA
Forward voltage	V_F			1.25	V	I_F =150 mA
Reverse current	I_R			1	μA	V_R =75 V
Reverse current	I_R			25	nA	V_R =20 V
Capacitance between terminals	C			2	pF	V_R =0V,f=1MHz
Reverse Recovery Time	t_r			4	ns	IF=IR=10mA ,Irr=0.1XIR,RL=100Ω

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

Typical Characteristics

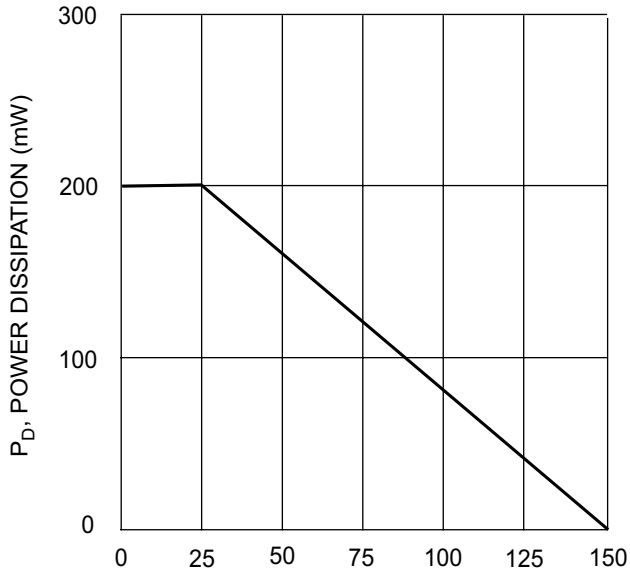


Fig. 1 Power Derating Curve

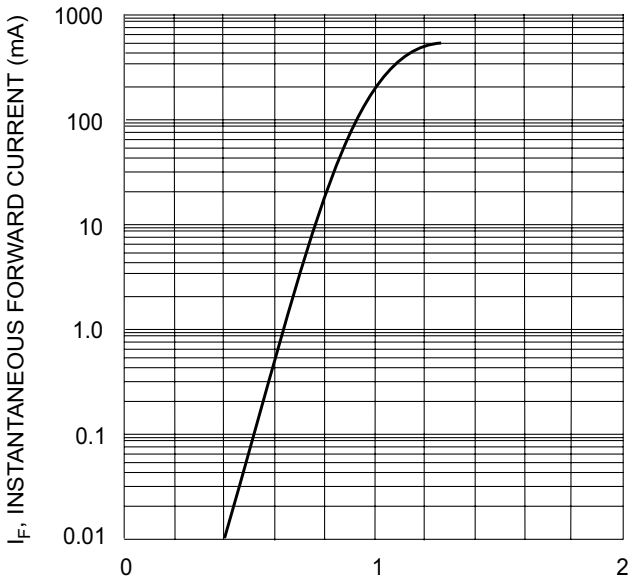


Fig. 2 Forward Characteristics

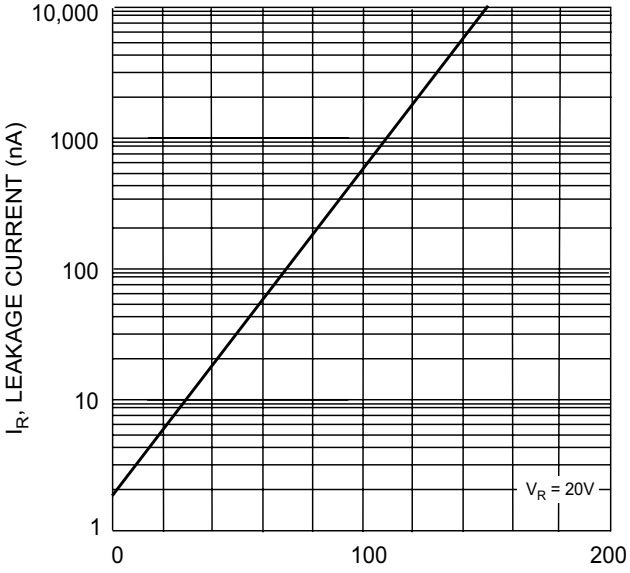


Fig. 3 Leakage Current vs Junction Temperature