

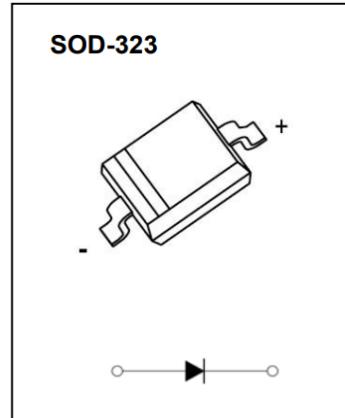
Silicon Epitaxial Planar Switching Diode

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

Applications

- Ultra high speed switching application



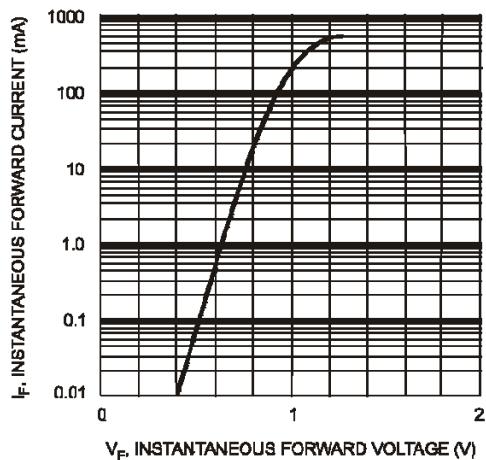
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Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Forward Current (DC)	I_F	215 125	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current at $t = 1 \text{ s}$ at $t = 1 \text{ ms}$ at $t = 1 \mu\text{s}$	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	350	mW
Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

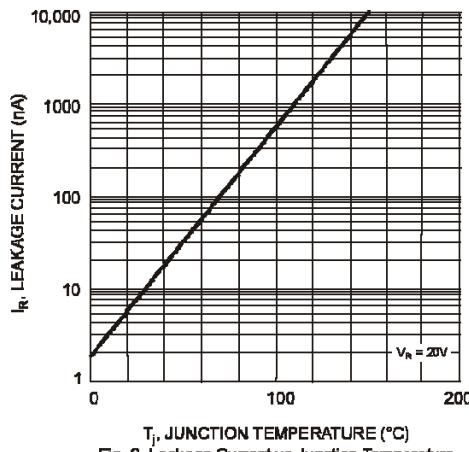
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	V_F V_F V_F V_F	715 855 1 1.25	mV mV V V
Reverse Current at $V_R = 25 \text{ V}$ at $V_R = 75 \text{ V}$ at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$	I_R I_R I_R I_R	30 1 30 50	nA μA μA μA
Diode Capacitance at $V_R = 0$, $f = 1 \text{ MHz}$	C_d	2	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}$, $R_L = 100 \Omega$	t_{rr}	4	ns



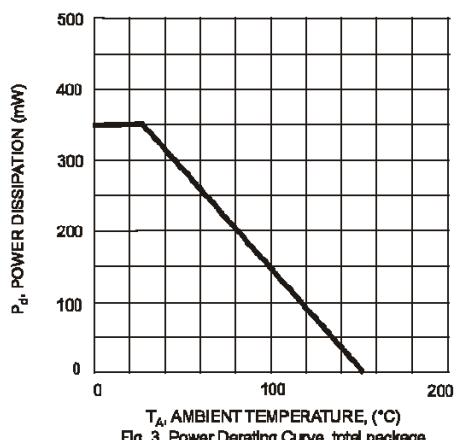
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Forward Characteristics



T_J, JUNCTION TEMPERATURE (°C)

Fig. 2 Leakage Current vs Junction Temperature



T_A, AMBIENT TEMPERATURE, (°C)
Fig. 3 Power Derating Curve, total package