

Silicon Epitaxial Planar Switching Diode

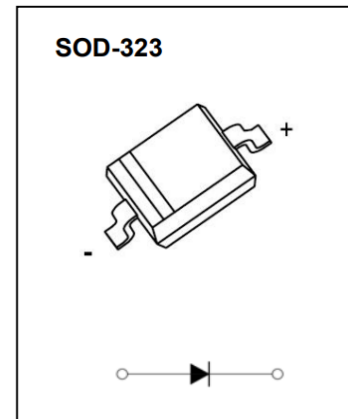
Features

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

Applications

- Ultra high speed switching application

MARKING: A6

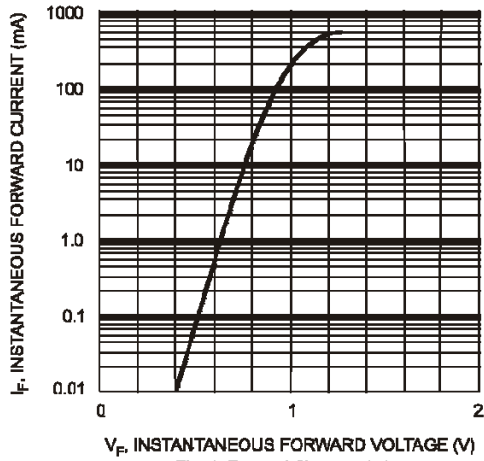


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

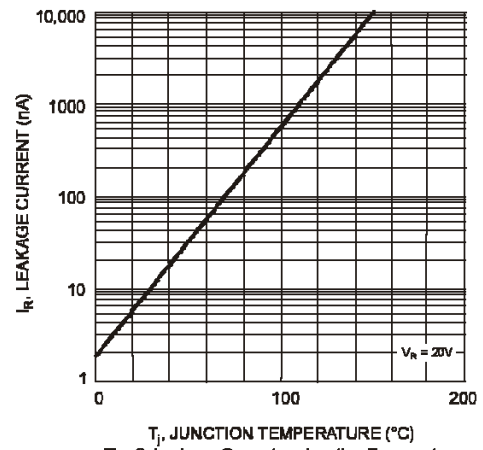
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Forward Current (DC)	I_F	215	mA
Single Diode Loaded		125	
Double Diode Loaded			
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	0.5
		at $t = 1\text{ ms}$	1
		at $t = 1\text{ }\mu\text{s}$	4
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 $T_a = 25\text{ }^\circ\text{C}$

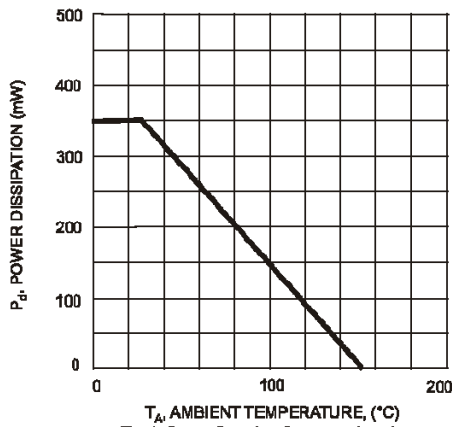
Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	at $I_F = 1\text{ mA}$	715
		at $I_F = 10\text{ mA}$	855
		at $I_F = 50\text{ mA}$	1
		at $I_F = 150\text{ mA}$	1.25
Reverse Current	I_R	at $V_R = 25\text{ V}$	30
		at $V_R = 75\text{ V}$	1
		at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$	30
		at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