
1SS120

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

ADE-208-167B (Z)

Rev. 2

Aug. 1995

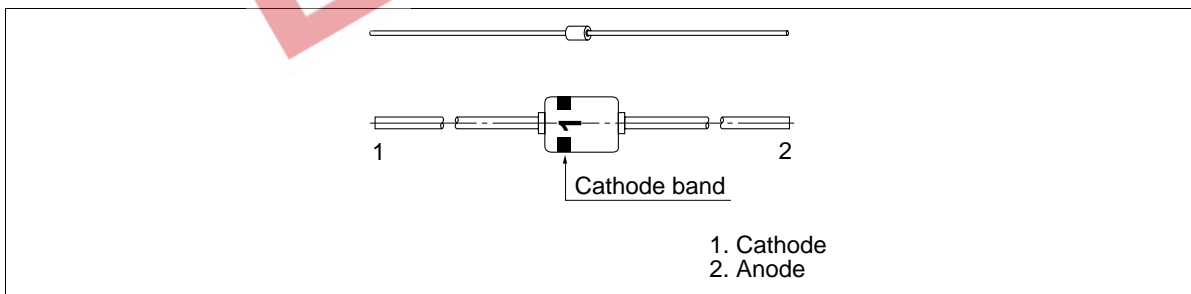
Features

- Low capacitance. ($C = 3.0\text{pF max}$)
- Short reverse recovery time. ($t_r = 3.5\text{ns max}$)
- Small glass package (MHD) enables easy mounting and high reliability.

Ordering Information

Type No.	Cathode band	Mark	Package Code
1SS120	Light Blue	1	MHD

Outline



1SS120

Absolute Maximum Ratings (Ta = 25°C)

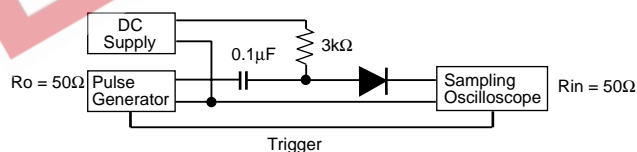
Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	70	V
Reverse voltage	V_R	60	V
Peak forward current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM}^*	1	A
Average forward current	I_O	150	mA
Power dissipation	P_d	250	mW
Junction temperature	T_j	175	°C
Storage temperature	T_{stg}	-65 to +175	°C

Note: Within 1s forward surge current.

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	0.8	V	$I_F = 10\text{mA}$
Reverse current	I_R	—	—	0.1	μA	$V_R = 60\text{V}$
Capacitance	C	—	—	3.0	pF	$V_R = 1\text{V}, f = 1\text{MHz}$
Reverse recovery time	t_{rr}^*	—	—	3.5	ns	$I_F = 10\text{mA}, V_R = 6\text{V}, R_L = 50\Omega$

Note: Reverse recovery time test circuit



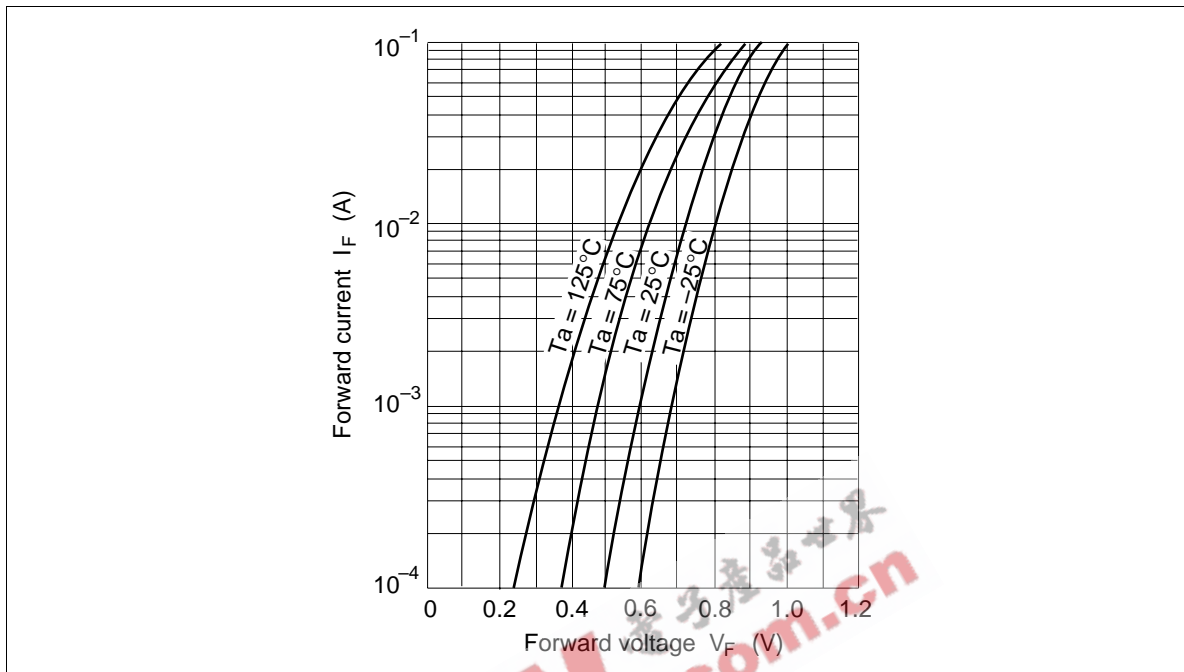


Fig.1 Forward current Vs. Forward voltage

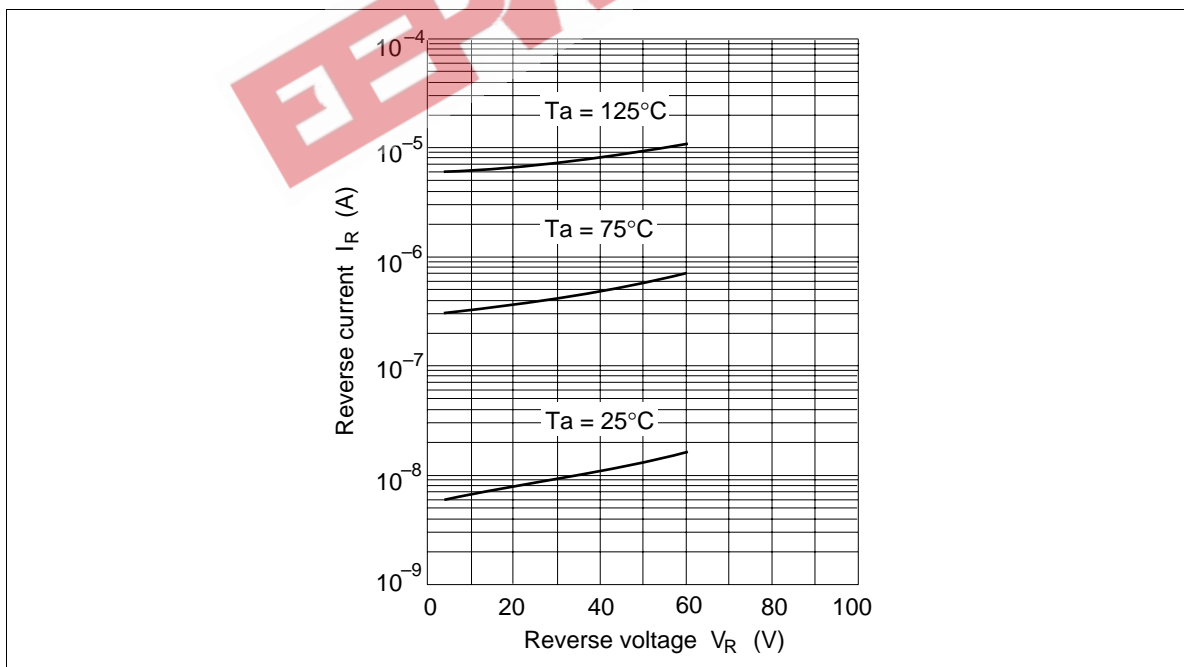


Fig.2 Reverse current Vs. Reverse voltage

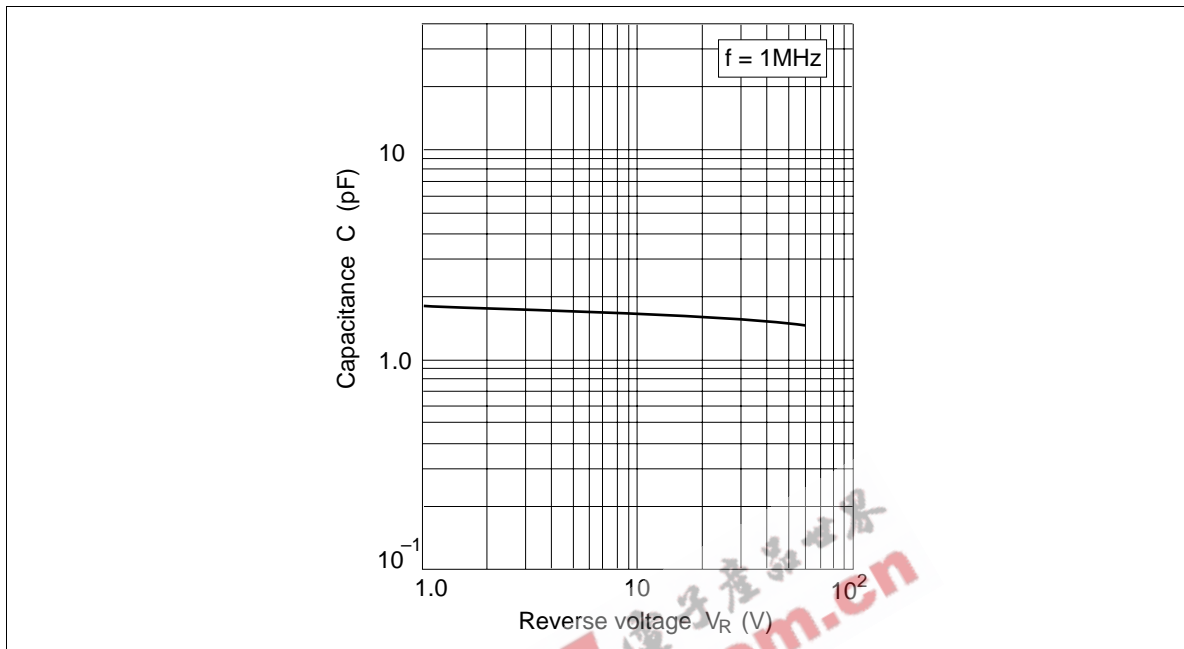
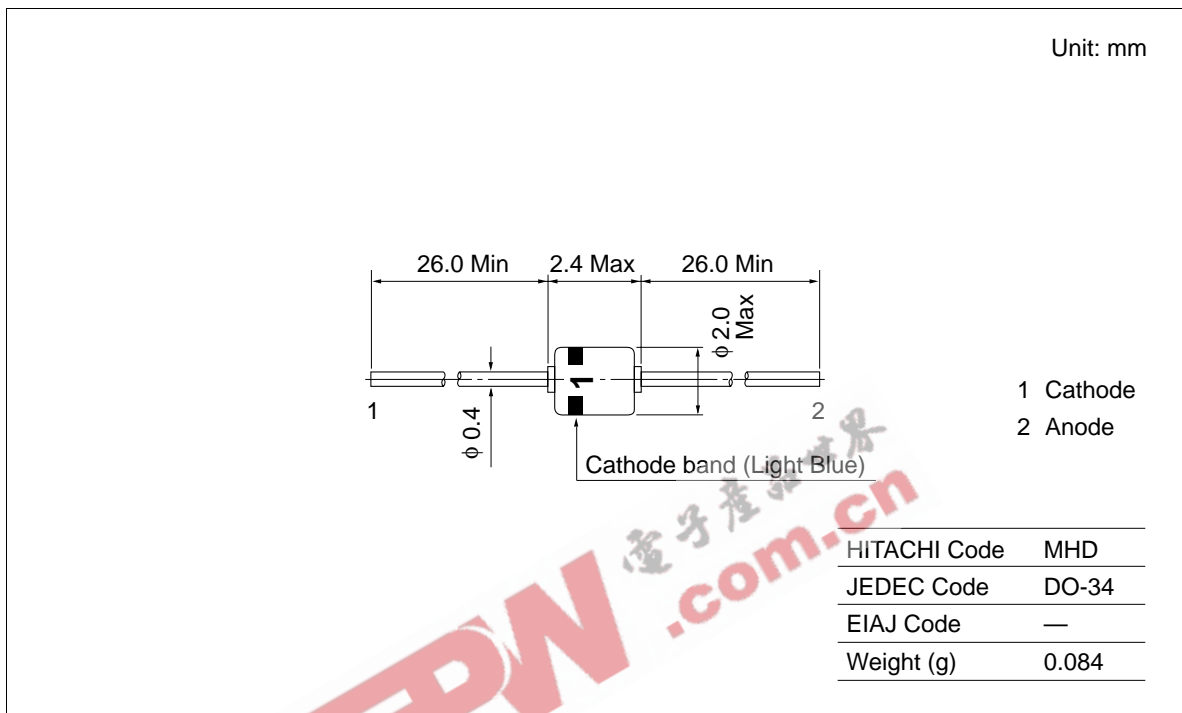


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions



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