

## Surface Mount Switching Diode

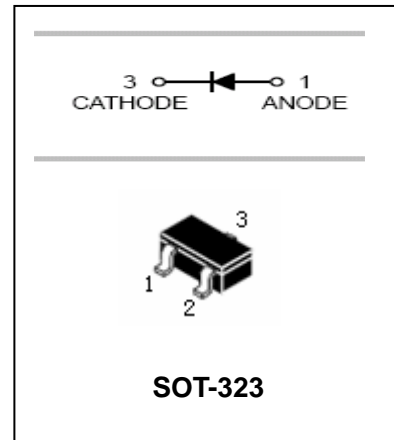
## M1MA174

### FEATURES

- Fast  $t_{rr} < 4.0\text{ns}$ .
- Low  $C_D, < 1.0\text{pF}$ .
- Pb-free packages are available.



Lead-free



### APPLICATIONS

- For high speed switching applications.

### ORDERING INFORMATION

Type No.	Marking	Package Code
M1MA174	J6	SOT-323

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Continuous reverse voltage	$V_R$	100	V
Forward output Current	$I_F$	200	mA
Peak Forward Surge Current (10 $\mu\text{s}$ )	$I_{FSM}$	500	mA
Power Dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55-+150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	100		V
Reverse current	$I_R$	$V_R=20\text{V}$ $V_R=75\text{V}$		25 5.0	nA $\mu\text{A}$
Forward voltage	$V_F$	$I_F=10\text{mA}$		1.0	V
Diode capacitance	$C_D$	$V_R=0\text{V}, f=1\text{MHz}$		4.0	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10\text{mA}$		4.0	ns

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TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified

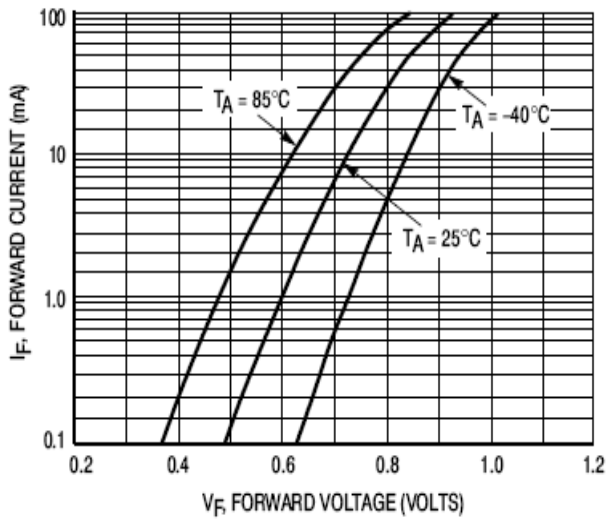


Figure 2. Forward Voltage

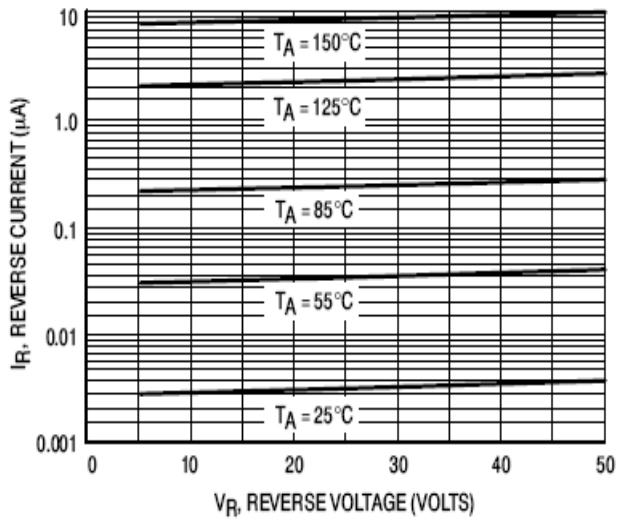


Figure 3. Leakage Current

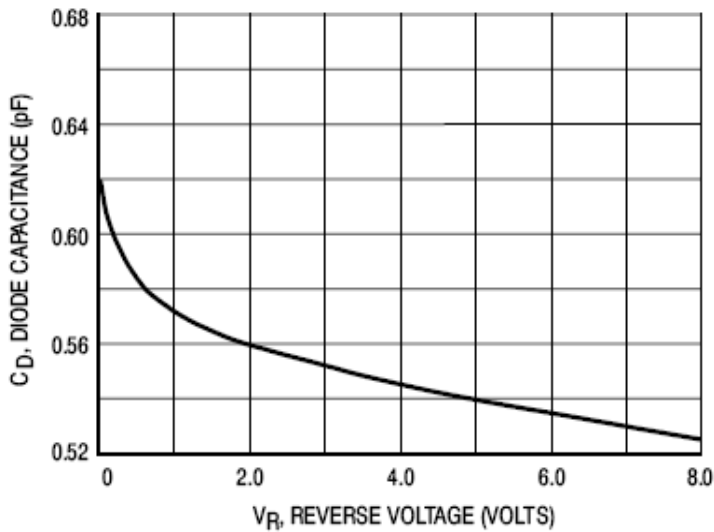


Figure 4. Capacitance

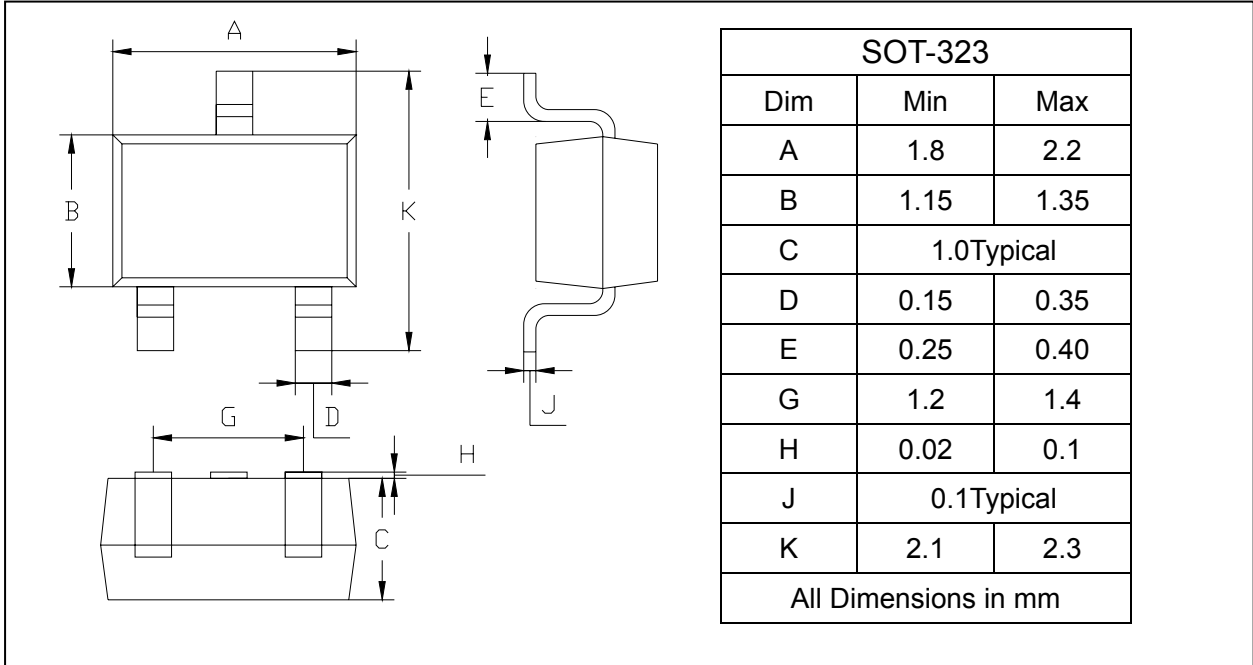
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## M1MA174

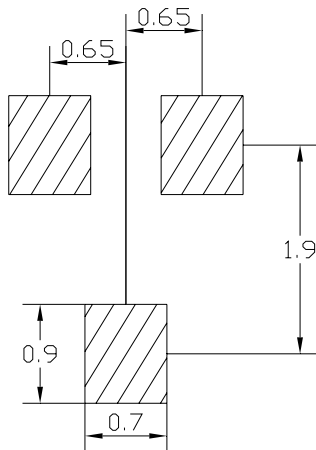
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
M1MA174	SOT-323	3000/Tape&Reel

[www.s-manuals.com](http://www.s-manuals.com)