

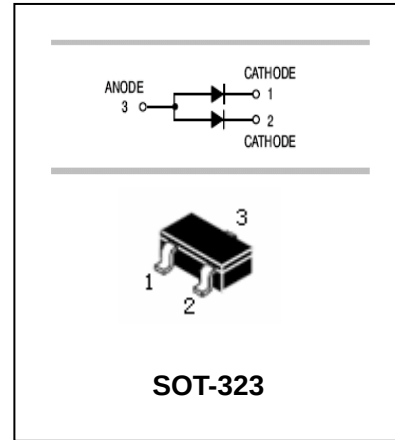
Surface Mount Switching Diode **M1MA141WA/M1MA142WA**

FEATURES

- Fast $t_{rr} < 10\text{ns}$.
- Low $C_D, < 15\text{pF}$.
- Pb-free packages are available.



Lead-free



APPLICATIONS

- For high speed switching applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
M1MA141WA	MN	SOT-323
M1MA142WA	MO	SOT-323

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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	M1MA141WA: 40 M1MA142WA: 80	V
Reverse voltage		M1MA141WA: 40 M1MA142WA: 80	V
Peak forward Current(max.)	I_{FM}	single: 225 dual: 340	mA
Forward output Current		single: 100 dual: 150	mA
Peak Forward Surge Current (1s)	I_{FSM}	M1MA141WA: 500 M1MA142WA: 750	mA
Power Dissipation	P_d	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55-+150	$^\circ\text{C}$

Surface Mount Switching Diode **M1MA141WA/M1MA142WA**

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown voltage M1MA141WA M1MA142WA	V_R	$I_R=100\mu\text{A}$	40 80		V
Reverse current M1MA141WA M1MA142WA	I_R	$V_R=35\text{V}$ $V_R=75\text{V}$		0.1	μA
Forward voltage	V_F	$I_F=100\text{mA}$		1.2	V
Diode capacitance	C_D	$V_R=0\text{V}, f=1\text{MHz}$		15	pF
Reverse recovery time	t_{rr}	$V_R=6\text{V}, I_F=10\text{mA},$ $R_L=100\Omega, I_{rr}=0.1I_R$		10	ns

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

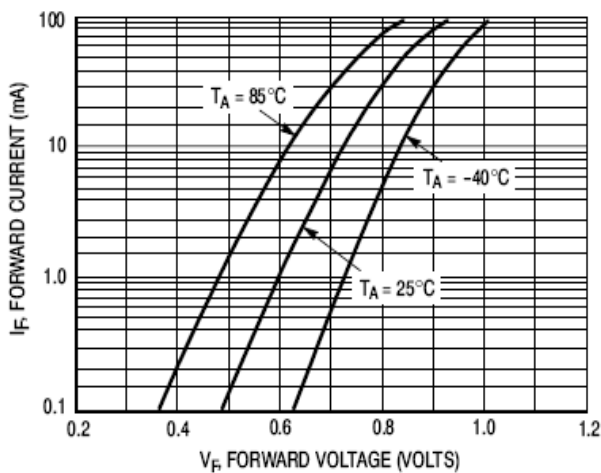


Figure 2. Forward Voltage

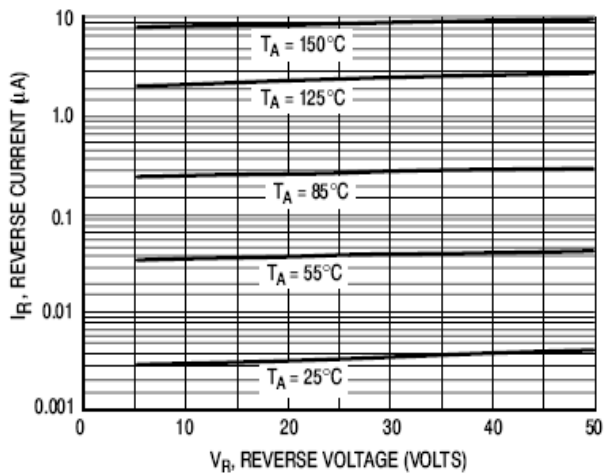


Figure 3. Reverse Current

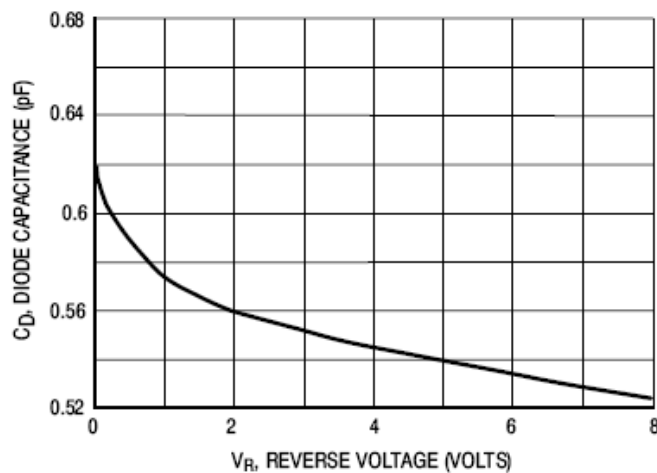


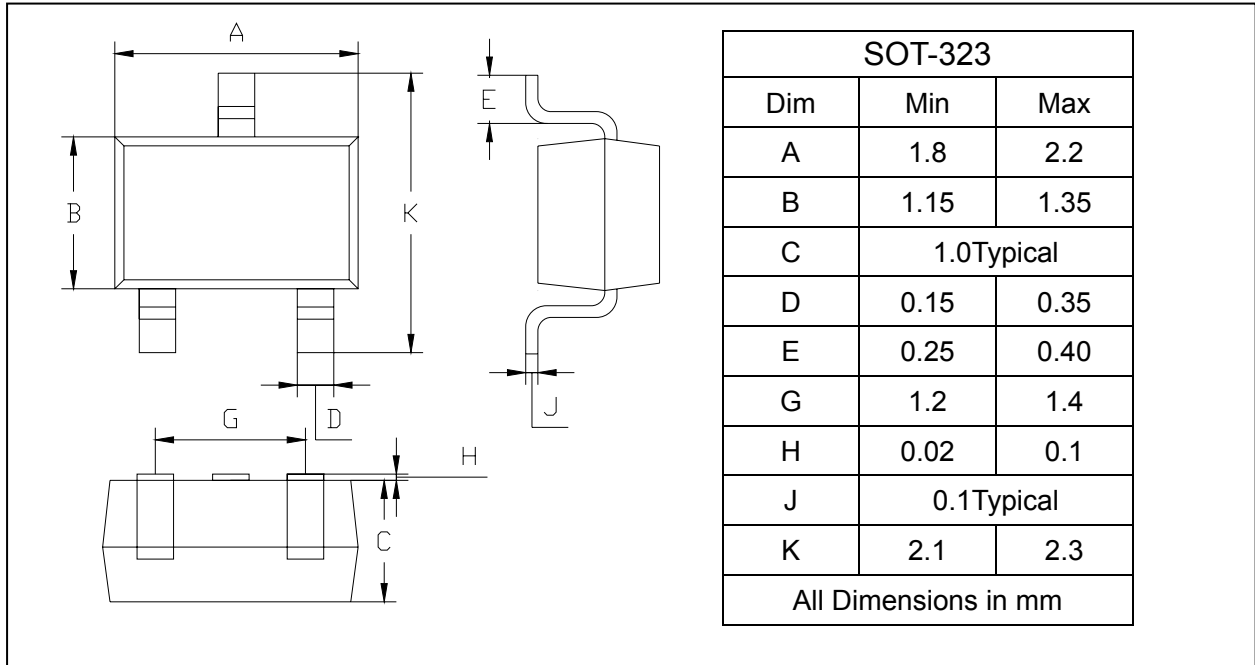
Figure 4. Diode Capacitance

Surface Mount Switching Diode **M1MA141WA/M1MA142WA**

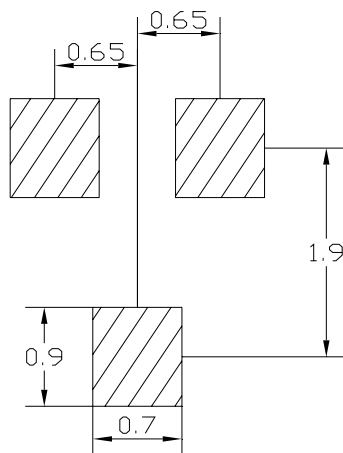
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
M1MA141WA/M1MA142WA	SOT-323	3000/Tape&Reel