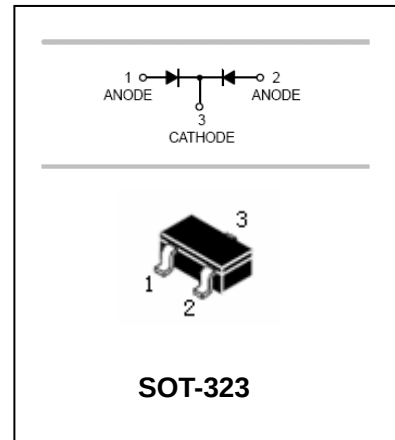

Surface Mount Switching Diode M1MA141WK/M1MA142WK

FEATURES

- Fast $t_{rr} < 3.0\text{ns}$.
- Low $C_D, < 2.0\text{pF}$.
- Pb-free packages are available.



Lead-free

**APPLICATIONS**

- For high speed switching applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
M1MA141WK	MT	SOT-323
M1MA142WK	MU	SOT-323

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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	40	V
M1MA141WK		80	
M1MA142WK			
Reverse voltage	V_R	40	V
M1MA141WK		80	
M1MA142WK			
Peak forward Current(max.)	I_{FM}	225	mA
single		340	
dual			
Forward output Current	I_F	100	mA
single		150	
dual			
Peak Forward Surge Current (1s)	I_{FSM}	500	mA
M1MA141WK		750	
M1MA142WK			
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 **M1MA141WK/M1MA142WK**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown voltage M1MA141WK M1MA142WK	V_R	$I_R=100\mu A$	40 80		V
Reverse current M1MA141WK M1MA142WK	I_R	$V_R=35V$ $V_R=75V$		0.1	μA
Forward voltage	V_F	$I_F=100mA$		1.2	V
Diode capacitance	C_D	$V_R=0V, f=1MHz$		2.0	pF
Reverse recovery time	t_{rr}	$V_R=6V, I_F=10mA,$ $R_L=100\Omega, I_{rr}=0.1I_R$		3.0	ns

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

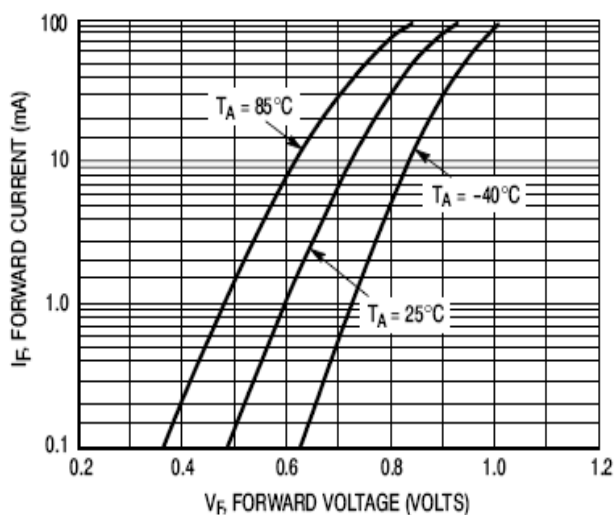


Figure 2. Forward Voltage

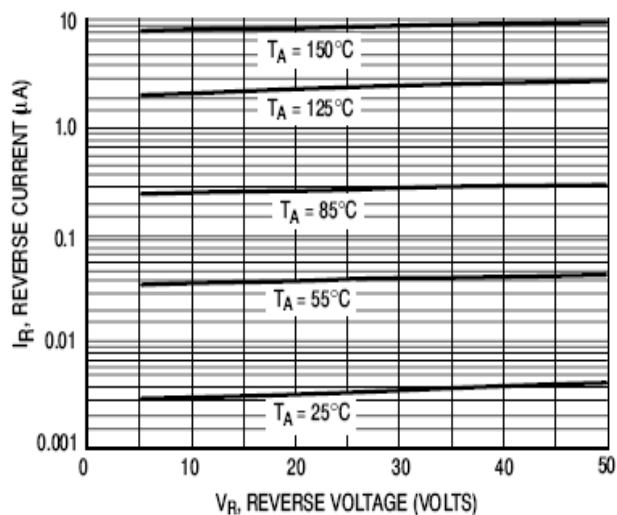


Figure 3. Reverse Current

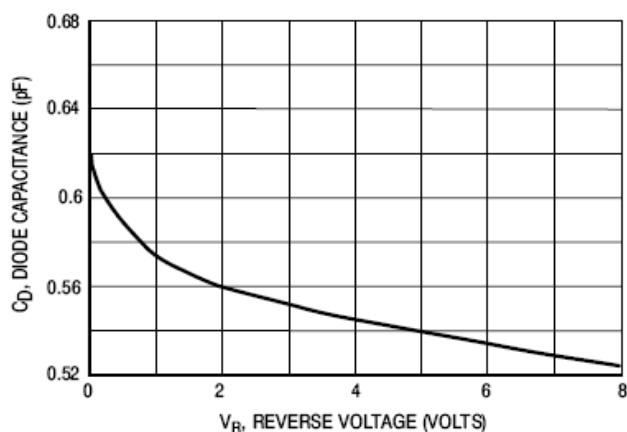


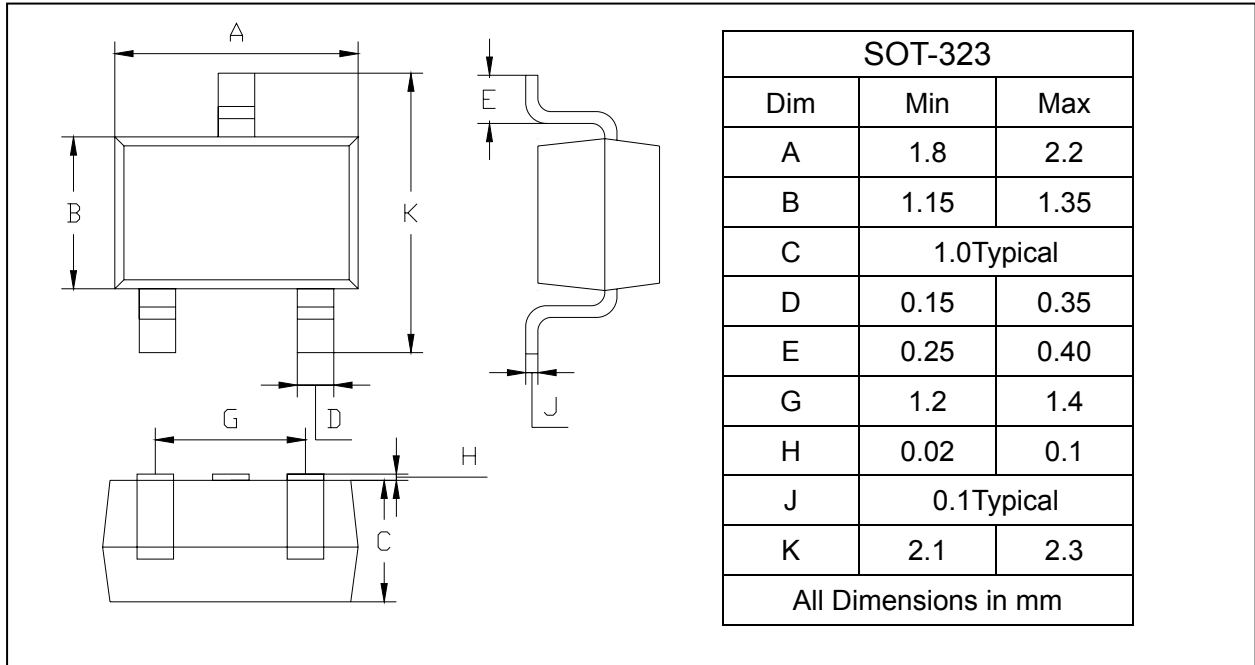
Figure 4. Diode Capacitance

Surface Mount Switching Diode **M1MA141WK/M1MA142WK**

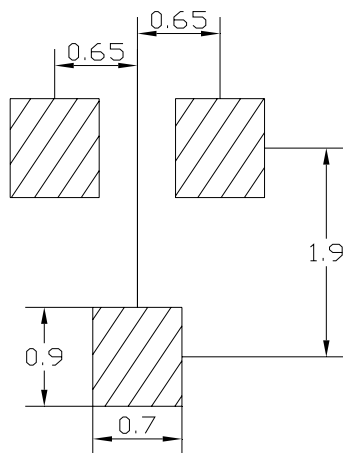
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
M1MA141WK/M1MA142WK	SOT-323	3000/Tape&Reel