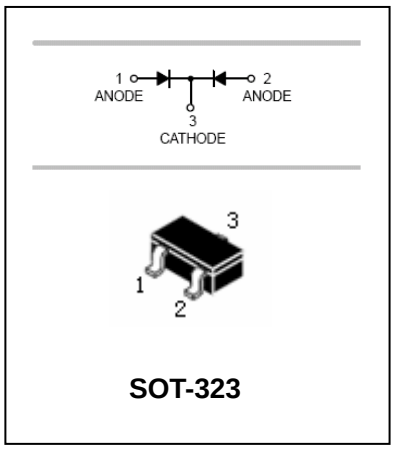
Surface Mount Switching Diode **M1MA141WK/M1MA142WK**

FEATURES

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

Lead-free



SOT-323

APPLICATIONS

- For high speed switching applications.

ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Limits**	**Unit**
Peak reverse voltage M1MA141WK M1MA142WK	V_{RM}	40 80	V
Reverse voltage M1MA141WK M1MA142WK	V_R	40 80	V
Peak forward Current(max.) single dual	I_{FM}	225 340	mA
Forward output Current single dual	I_F	100 150	mA
Peak Forward Surge Current (1s) M1MA141WK M1MA142WK	I_{FSM}	 500 750	mA
Power Dissipation	P_d	150	mW
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55-+150	℃

Surface Mount Switching Diode **M1MA141WK/M1MA142WK**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown voltage M1MA141WK M1MA142WK	V_R	I_R=100μA	 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=100Ω,I_{rr}=0.1I_R		3.0	ns

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

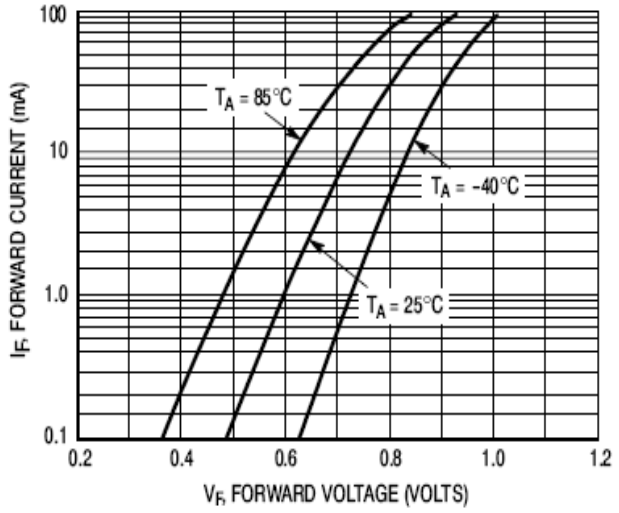


Figure 2. Forward Voltage

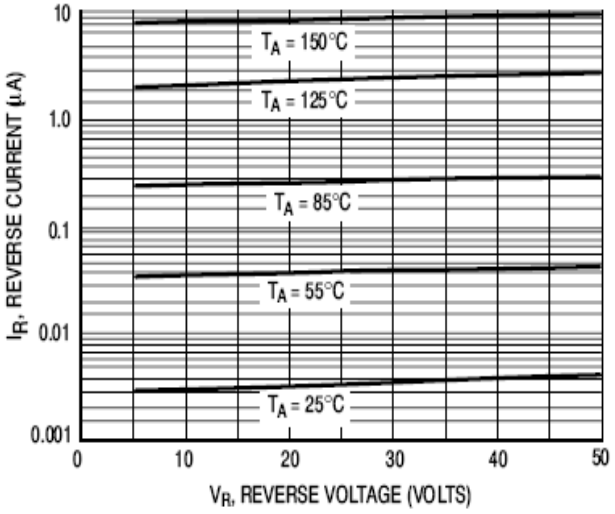


Figure 3. Reverse Current

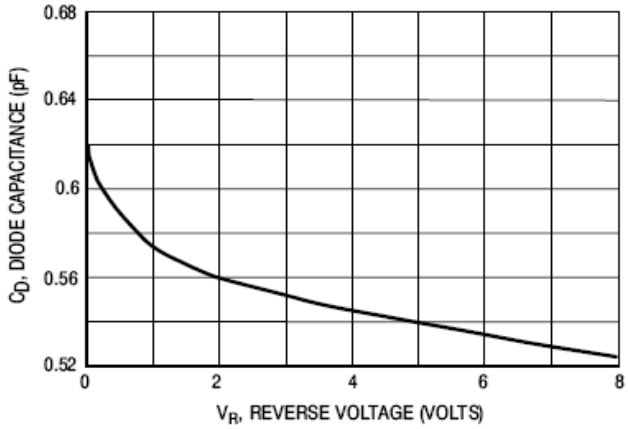
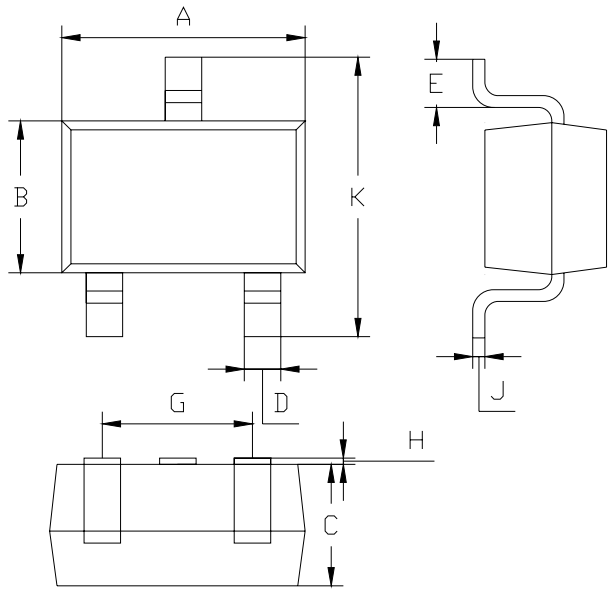


Figure 4. Diode Capacitance

Surface Mount Switching Diode **M1MA141WK/M1MA142WK**

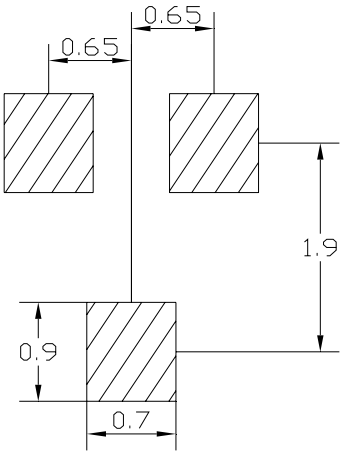
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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