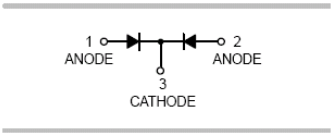
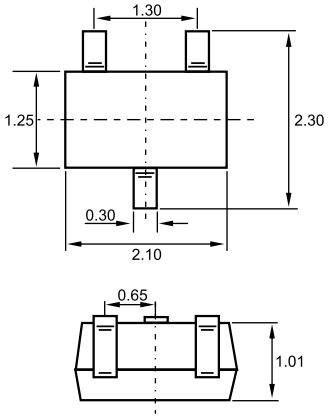
M1MA141WK/M1MA142WK

Surface Mount Switching Diodes



SOT-323



Dimensions in inches and (millimeters)

Features

- ✧ Fast t_{rr}<3.0ns.
- ✧ Low C_D,<2.0pF.
- ✧ Pb/RoHS Free.

Applications

- ✧ For high speed switching applications.

Ordering Information

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

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

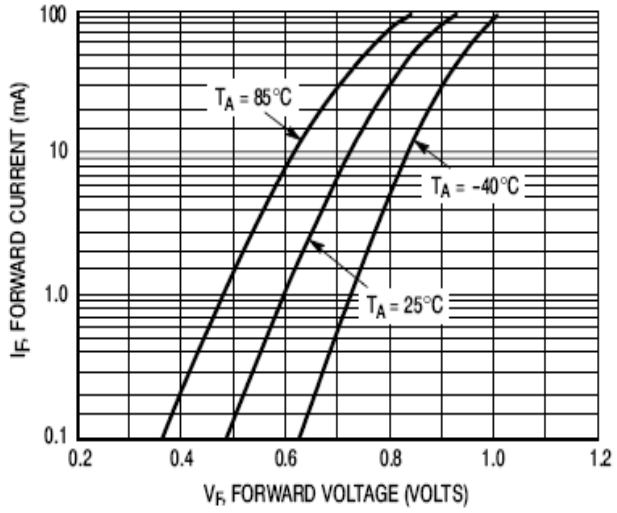


Figure 2. Forward Voltage

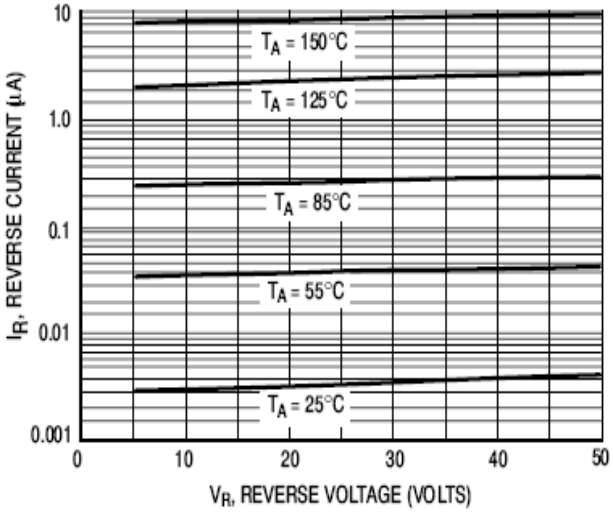


Figure 3. Reverse Current

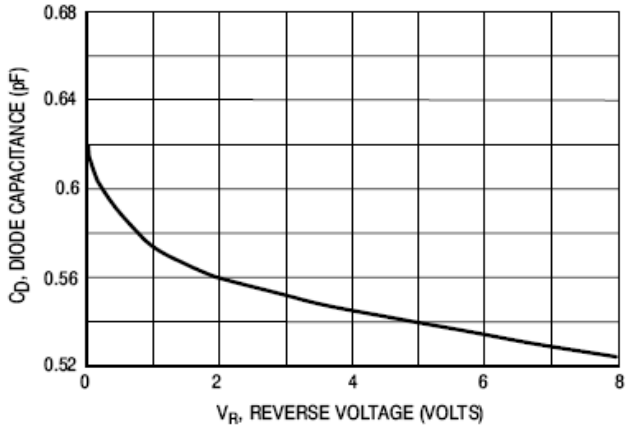


Figure 4. Diode Capacitance