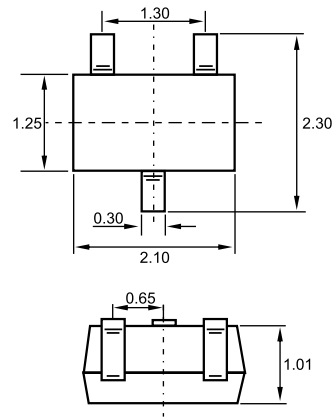


SOT-323



Dimensions in inches and (millimeters)

Features

- ✧ Fast $t_{rr} < 3.0\text{ns}$.
- ✧ Low $C_D, < 2.0\text{pF}$.
- ✧ Pb/RoHS 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	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	$^\circ\text{C}$	
Storage temperature range	T_{stg}	-55-+150	$^\circ\text{C}$	

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse Breakdown voltage	V_R	$I_R=100\mu A$	40		V
M1MA141WK M1MA142WK			80		
Reverse current	I_R	$V_R=35V$		0.1	μA
M1MA141WK M1MA142WK		$V_R=75V$			
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

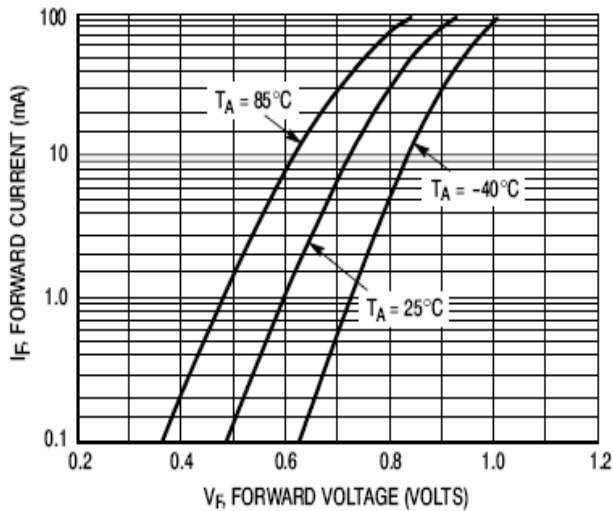


Figure 2. Forward Voltage

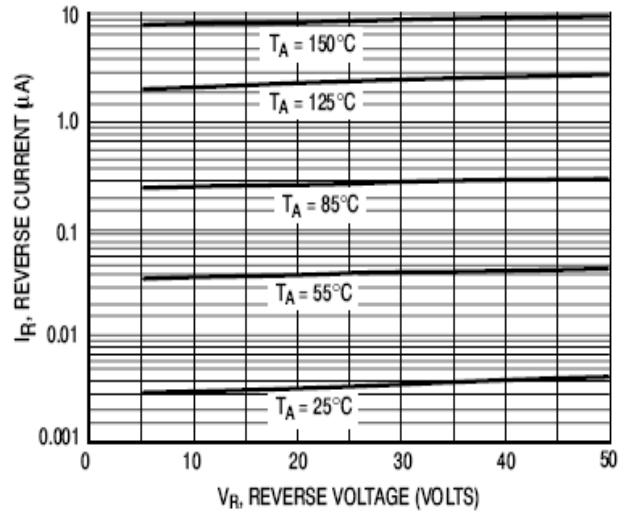


Figure 3. Reverse Current

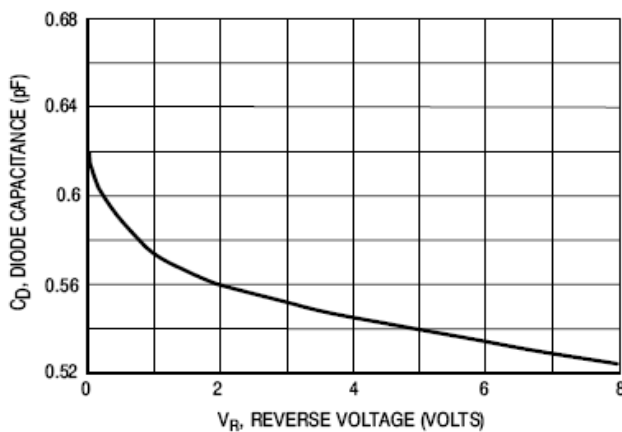


Figure 4. Diode Capacitance