



SEMICONDUCTOR

MA700, MA700A

SMALL SIGNAL SCHOTTKY DIODES

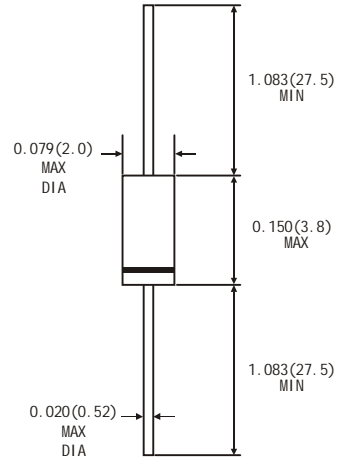
FEATURES

- Low forward voltage drop
 - Satisfactory wave detection efficiency
 - Small temperature coefficient of forward characteristics
 - Extremely low reverse current
- These products are ideal for use in ordinary wave detection and super high speed switching circuits

MECHANICAL DATA

- *Case:* DO-35 glass case
 - *Polarity:* Color band denotes cathode end
 - *Product Sign:* Marking MA700 or MA700A on body
- Weight:* Approx. 0.13 gram

DO-35



Dimensions in inches and (millimeters)

ABSOLUTE RATINGS(LIMITING VALUES)

($T_A = 25^\circ\text{C}$)

Parameters	Symbols	Value	Units
Reverse voltage	V_R	15	V
		30	
Peak reverse voltage	V_{RM}	15	V
		30	
Average rectified current	I_o	30	mA
Peak forward current	I_{FM}	150	mA
Junction temperature	T_J	125	$^\circ\text{C}$
Storage temperature	T_{SIG}	-55 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$)

Parameters	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Forward voltage(DC)	V_{F1}	$I_f = 1\text{mA}$			0.4	V
	V_{F2}	$I_f = 30\text{mA}$			1	V
Reverse Current	I_R	$V_R = 15\text{V}$			100	nA
		$V_R = 30\text{V}$			150	nA
Junction Capacitance	C_J	$V_R = 1\text{V}$ $f = 1\text{MHz}$		1.3		pF
Rectifier efficiency	η	$V_{in} = 3\text{Vrms}$ $f = 30\text{MHz}$ $R_L = 3.9\text{k}\Omega$ $C_L = 10\text{pF}$		60		%
Reverse recovery time	t_{rr}	$I_f = I_R = 10\text{mA}$ $I_{tr} = 1\text{mA}, R_L = 100\text{k}\Omega$		1		ns

Note: 1. Schottky barrier rectifier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

RATINGS AND CHARACTERISTICS CURVES MA700,MA700A

Figure 1. Forward voltage VS. forward current

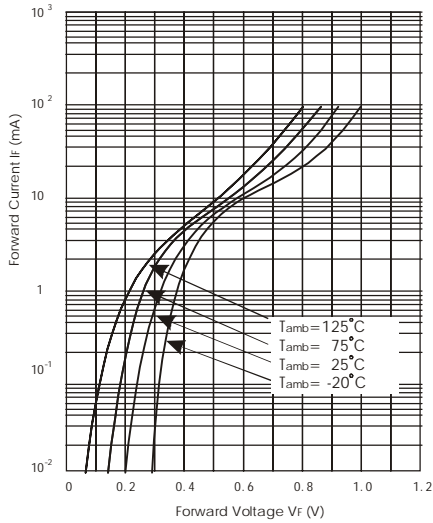


Figure 2. Forward voltage VS. Ambient Temperature

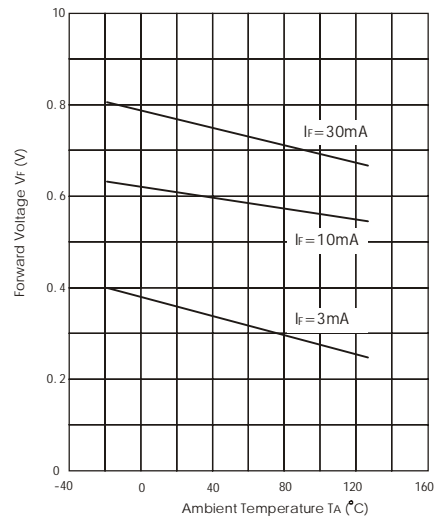


Figure 3. MA700 Reverse characteristics

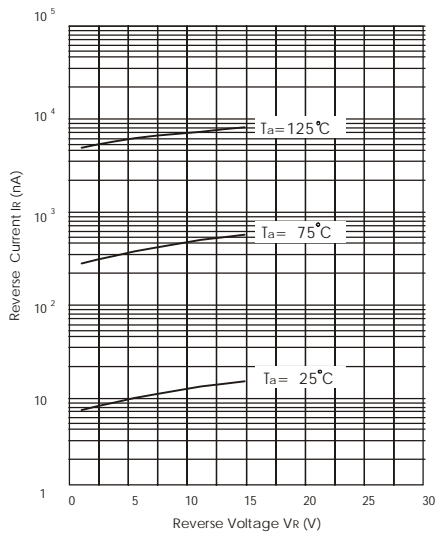
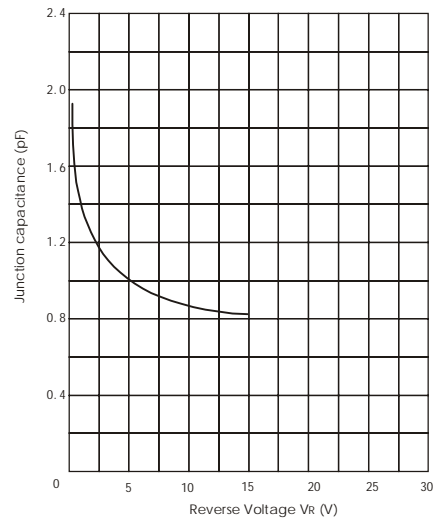


Figure 4. MA700 Junction Capacitance



RATINGTS AND CHARACTERISTICS CURVES MA700,MA700A

Figure 5. MA700 reverse current temperature characteristics

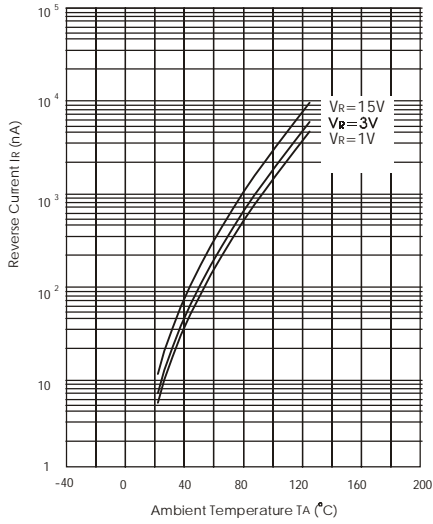


Figure 6. MA700A reverse characteristics

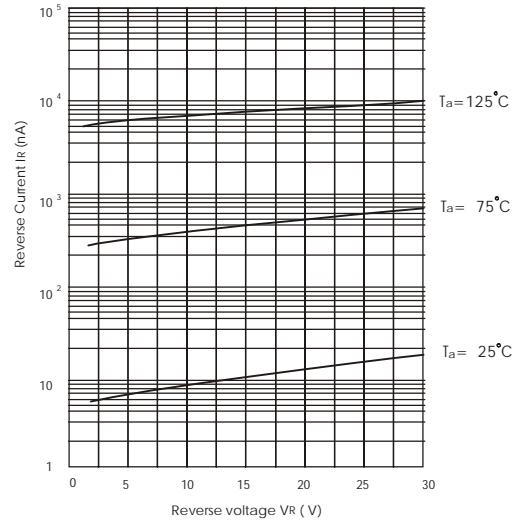


Figure 7. MA700A Junction Capacitance

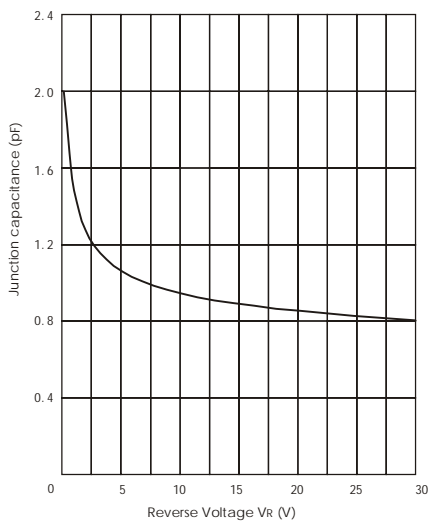


Figure 8. MA700A reverse current temperature characteristics

