

MA700 THRU MA700A

SMALL SIGNAL SCHOTTKY DIODES

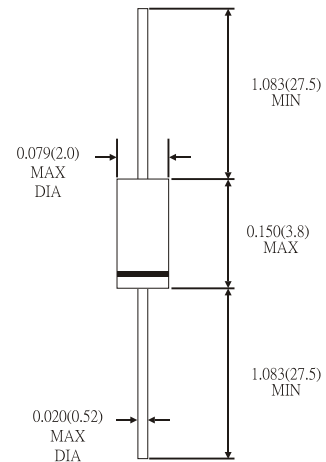
FEATURES

- 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	MA700	V_R	15	V
	MA700A		30	
Peak revers voltage	MA700	V_{RM}	15	V
	MA700A		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_{STG}	-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	MA700	I_R	$V_R = 15\text{V}$			100	nA
	MA700A		$V_R = 30\text{V}$			150	
Junction Capacitance		C_J	$V_R = 1\text{V}$ $f = 1\text{MHz}$		1.3		pF
Rectifier efficiency		η	$V_m = 3\text{Vrms}$ $f = 30\text{MHz}$ $R_L = 3.9\text{k}\Omega$ $C_L = 10\text{pF}$		60		%
Reverse recovery time		t_{rr}	$I_f = I_R = 10\text{mA}$ $I_R = 1\text{mA}, R_L = 100\text{k}\Omega$		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 THRU MA700A

Figure 1. Forward voltage VS. forward current

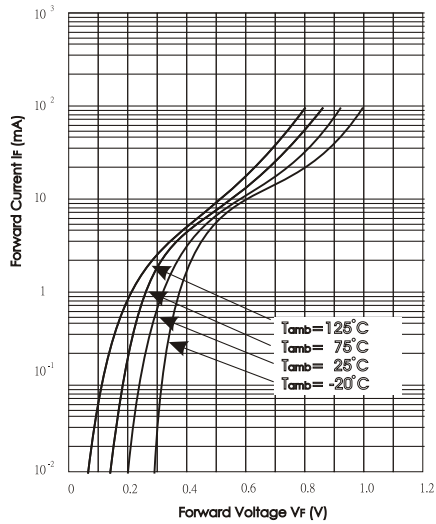


Figure 2. Forward voltage VS. Ambient Temperature

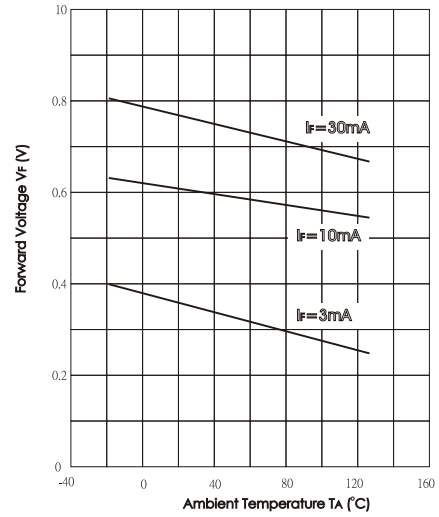


Figure 3. MA700 Reverse characteristics

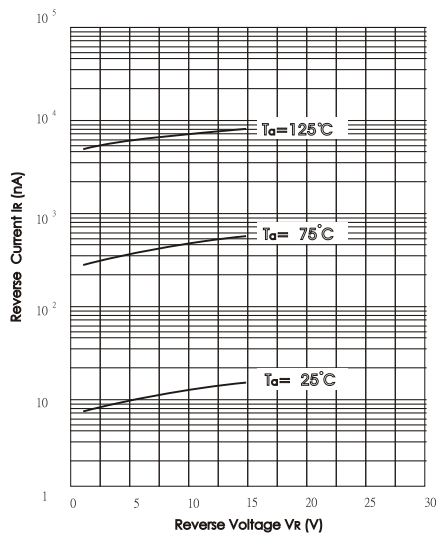
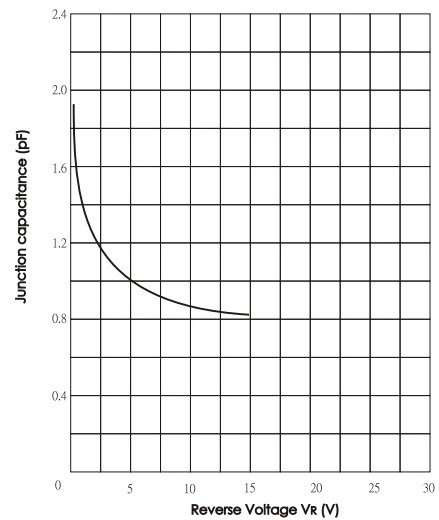


Figure 4. MA700 Junction Capacitance



RATINGS AND CHARACTERISTICS CURVES MA700 THRU MA700A

Figure 5. MA700 reverse current temperature characteristics

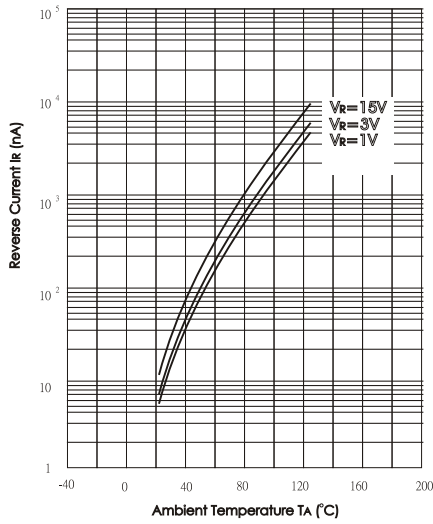


Figure 6. MA700A reverse characteristics

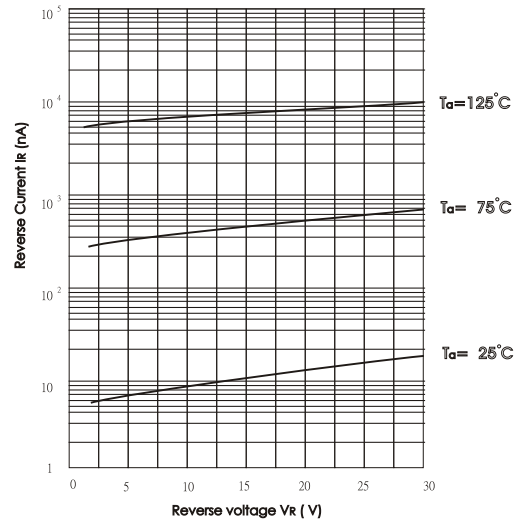


Figure 7. MA700A Junction Capacitance

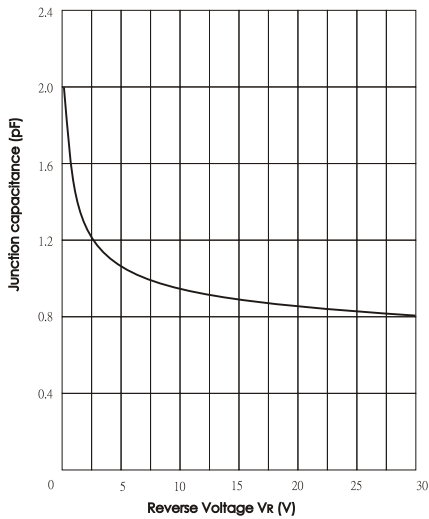


Figure 8. MA700A reverse current temperature characteristics

