

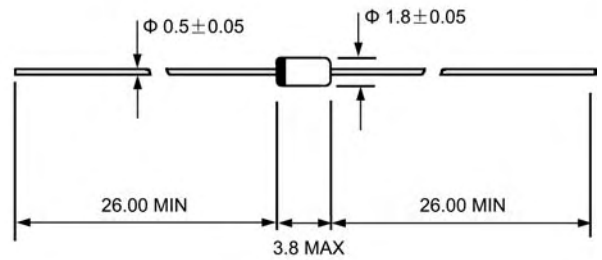
# MA700A

Small Signal Schottky Diodes

**VOLTAGE RANGE: 30 V**

**CURRENT: 0.03 A**

**DO - 35(GLASS)**



Dimensions in millimeters

## Features

- ◇ Low forward voltage drop
  - ◇ Satisfactory wave detection efficiency
  - ◇ Extremely low reverse current  $I_R$
  - ◇ 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: JEDEC DO--35, glass case
- ◇ Polarity: Color band denotes cathode end
- ◇ Product Sign: Marking MA700A on body
- ◇ Weight: Approx. 0.13 gram

## ABSOLUTE RATINGS (LIMITING VALUES) ( $T_A=25^\circ\text{C}$ )

Parameters	Symbols	Value	UNITS
Reverse voltage	$V_R$	30.0	V
Peak reverse voltage	$V_{RM}$	30.0	V
Average rectified current	$I_O$	30.0	mA
Peak forward current	$I_{FM}$	150.0	mA
Junction temperature	$T_J$	125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	- 55 ---- + 150	$^\circ\text{C}$

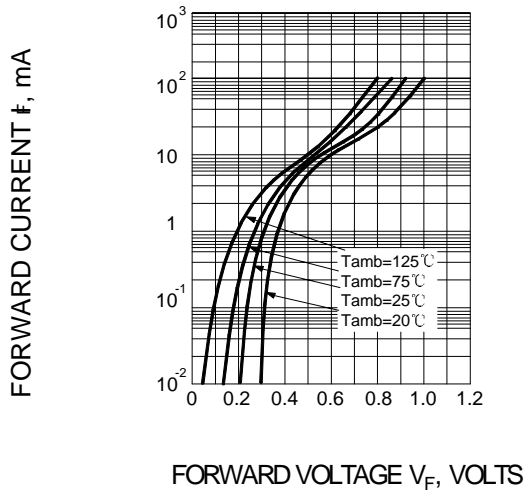
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ )

Parameters	Symbols	Test Conditions	Min.	Typ.	Max.	UNITS
Forward voltage(DC)	$V_F$	$I_F=1\text{mA}$			0.4	V
		$I_F=30\text{mA}$			1.0	
Reverse current	$I_R$	$V_R=30\text{V}$			150	nA
Junction capacitance	$C_J$	$V_R=1\text{V}$ $f=1\text{MHz}$		1.3		pF
Rectifier efficiency	$\eta$	$V_i=3\text{V}$ $f=30\text{MHz}$ $C_L=10\text{pF}$ $R_L=3.9\text{K}\Omega$		60.0		%
Reverse recovery time	$t_{rr}$	$I_F=I_R=10\text{mA}$ $t_{rr}=1\text{mA}$ $R_c=100\text{k}\Omega$		1		ns

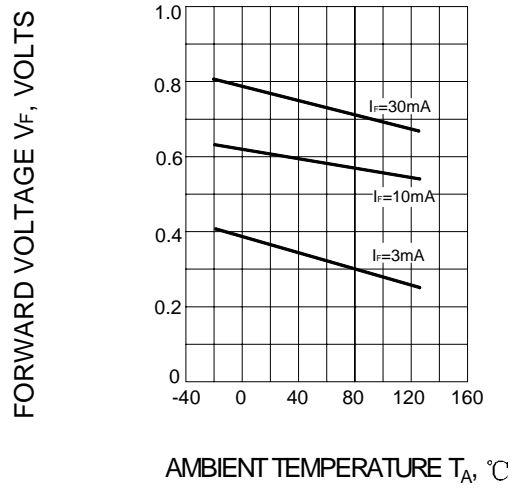
NOTE: 1. Schottky barrier rectifier diode is sensitive to electric shock(static electricity .etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

# Ratings AND Characteristic Curves

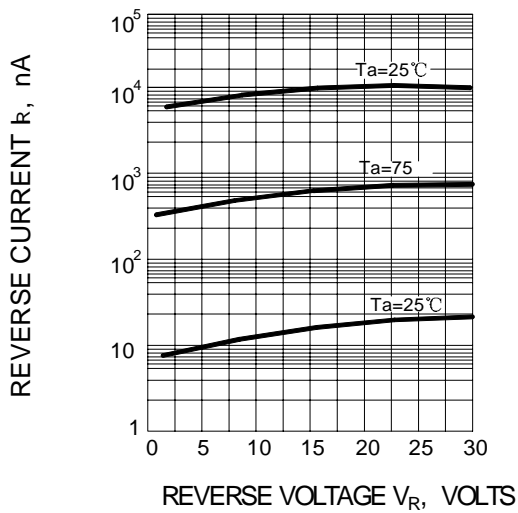
**FIG.1 – FORWARD VOLTAGE VS. FORWARD CURRENT**



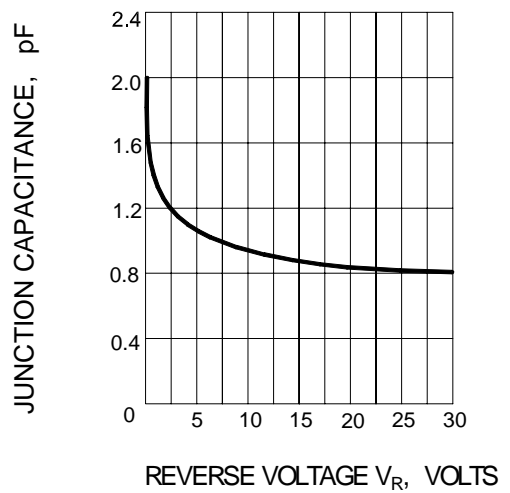
**FIG.2 – FORWARD VOLTAGE VS. AMBIENT TEMPERATURE**



**FIG.3 – MA700A REVERSE CHARACTERISTICS**



**FIG.4 – MA700A JUNCTION CAPACITANCE**



# Ratings AND Characteristic Curves

**FIG.5 – MA700A REVERSE CURRENT TEMPERATURE CHARACTERISTICS**

