

# MA3X715 (MA715)

## Silicon epitaxial planar type

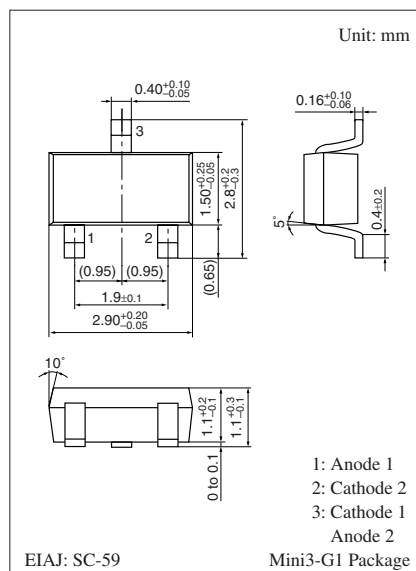
For high frequency rectification

### ■ Features

- Low forward voltage  $V_F$
- Optimum for high frequency rectification because of its short reverse recovery time  $t_{rr}$

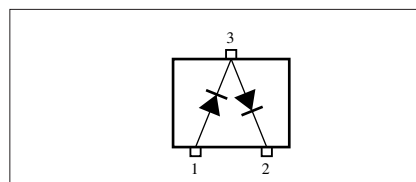
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Reverse voltage		$V_R$	30	V
Maximum peak reverse voltage		$V_{RM}$	30	V
Forward current	Single	$I_F$	30	mA
	Double		20	
Peak forward current	Single	$I_{FM}$	150	mA
	Double		110	
Junction temperature		$T_j$	125	$^\circ\text{C}$
Storage temperature		$T_{stg}$	-55 to +125	$^\circ\text{C}$



Marking Symbol: M2Y

Internal Connection



### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

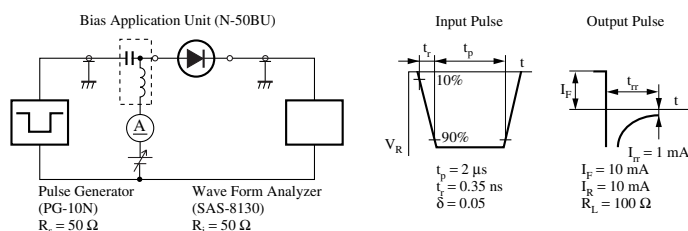
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 1 \text{ mA}$			0.3	V
	$V_{F2}$	$I_F = 30 \text{ mA}$			1.0	
Reverse current	$I_R$	$V_R = 30 \text{ V}$			30	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		1.5		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 10 \text{ mA}$ $I_{rr} = 1 \text{ mA}, R_L = 100 \Omega$		1.0		ns
Detection efficiency	$\eta$	$V_{IN} = 3 \text{ V}_{(peak)}, f = 30 \text{ MHz}$ $R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		65		%

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

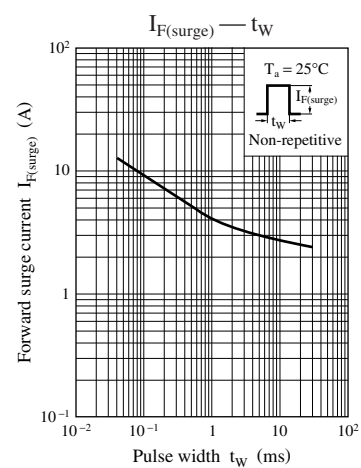
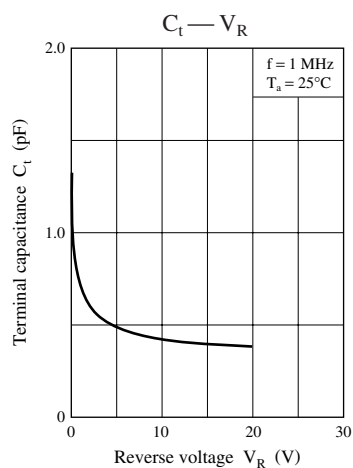
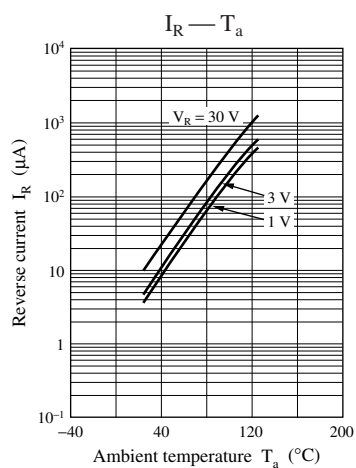
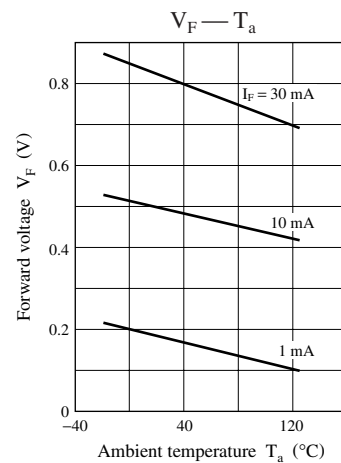
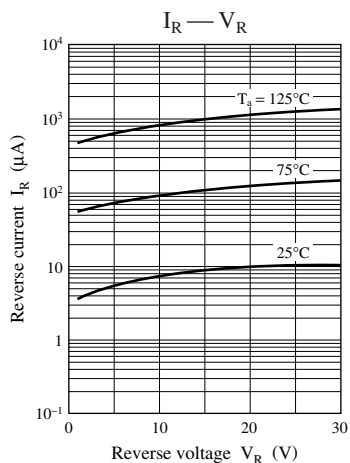
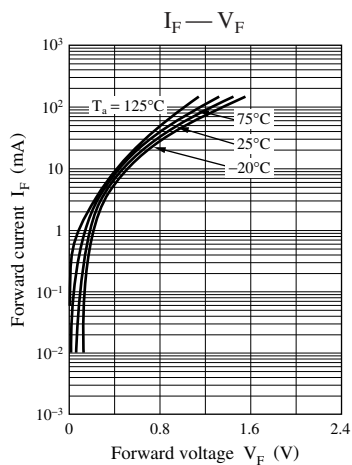
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.

3. Absolute frequency of input and output is 2 GHz.

4. \*:  $t_{rr}$  measurement circuit



Note) The part number in the parenthesis shows conventional part number.



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