

# MA2C840 (MA840)

## Silicon epitaxial planar type

For AFC of UHF and VHF electronic tuners

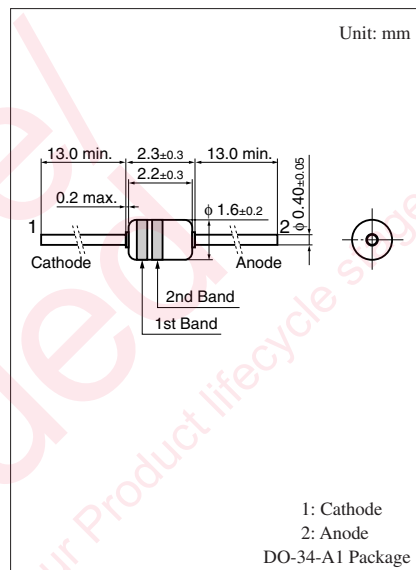
### ■ Features

- Extra-small DHD envelope, allowing to insert a 5 mm pitch hole
- Small series resistance  $r_D$
- Large variable capacitance range

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	32	V
Maximum peak reverse voltage *	$V_{RM}$	34	V
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) \*:  $R_L = 2.2\text{ k}\Omega$ , 1 pulse



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_F$	$I_F = 100\text{ mA}$			1.1	V
Reverse current	$I_R$	$V_R = 30\text{ V}$			10	nA
Diode capacitance	$C_{D(2V)}$	$V_R = 2\text{ V}, f = 1\text{ MHz}$	10.5		16.0	pF
	$C_{D(10V)}$	$V_R = 10\text{ V}, f = 1\text{ MHz}$	3.3		5.7	pF
Capacitance ratio *	$C_{D(2V)} / C_{D(10V)}$		2.5		3.4	—
Series resistance	$r_D$	$C_D = 9\text{ pF}, f = 470\text{ MHz}$			1.2	$\Omega$

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

2. Absolute frequency of input and output is 470 MHz.

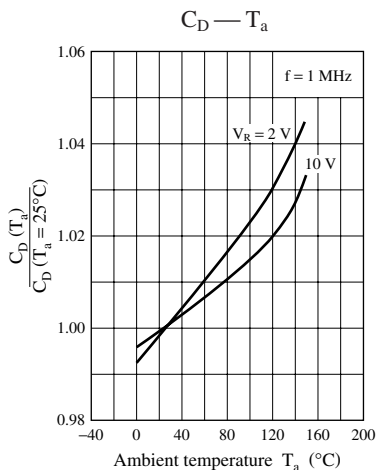
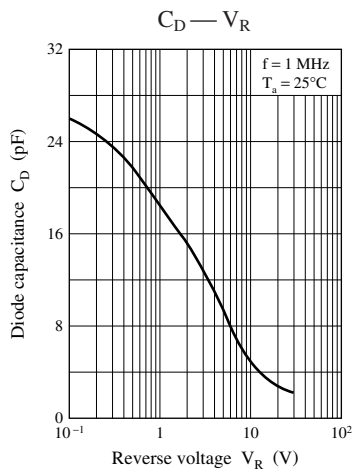
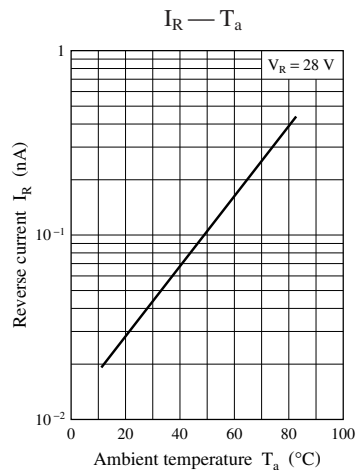
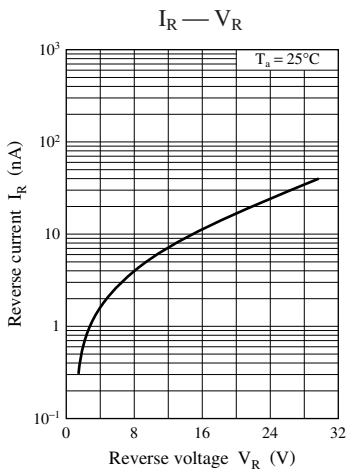
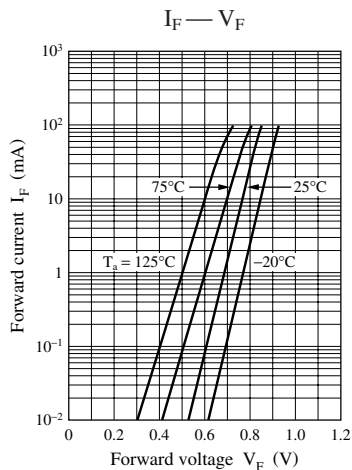
3. \*: Rank classification

Rank	A	B
$C_{D(2V)} / C_{D(10V)}$	2.5 to 3.0	2.8 to 3.4

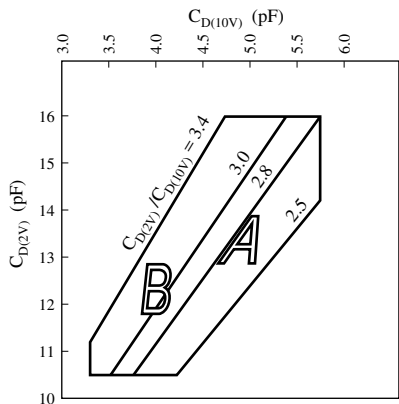
### ■ Cathode Mark

Class	A	B
1st band	Light Blue	Light Blue
2nd band	White	Green

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



**$C_D$  rank classification**



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