

MA2C840 (MA840)

Silicon epitaxial planar type

For AFC of UHF and VHF electronic tuners

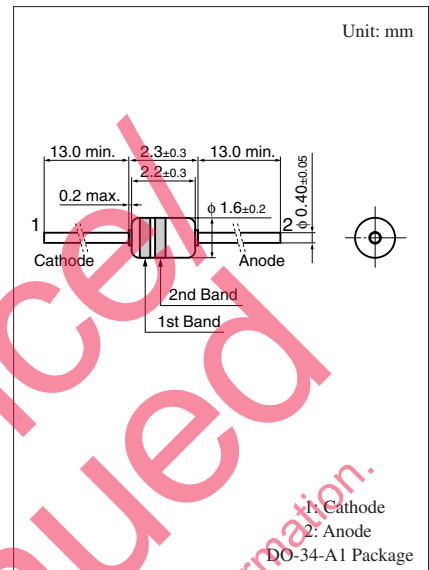
■ Features

- 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	Ω

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.

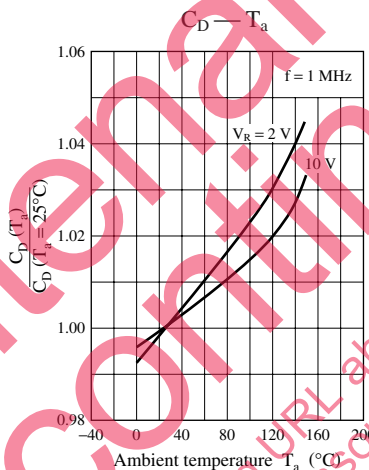
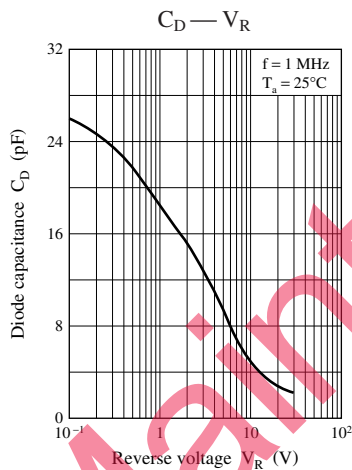
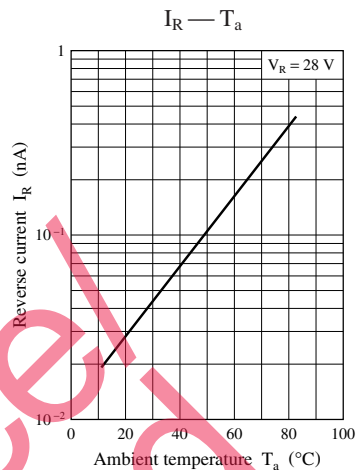
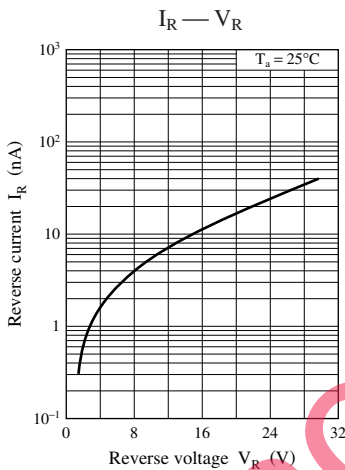
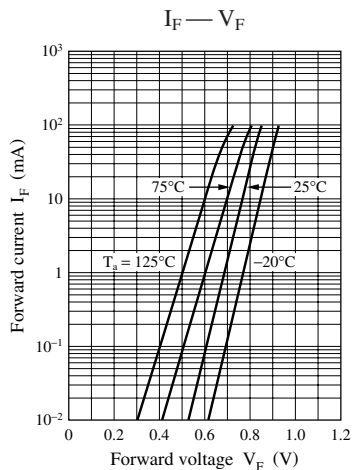
3. *: Rank classification

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

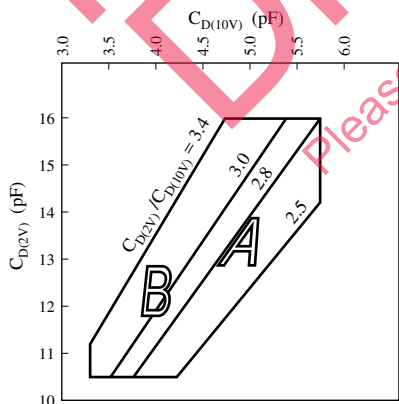
■ Cathode Mark

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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