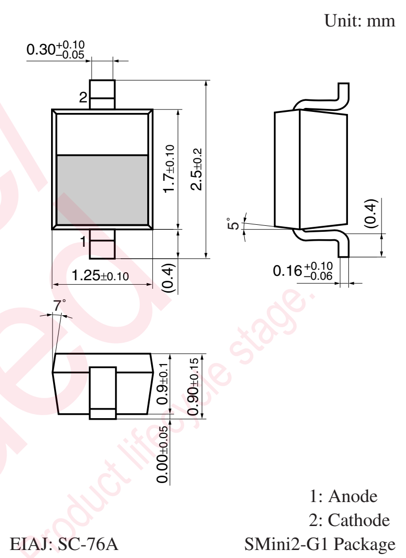
MA2Z374 (MA374)

Silicon epitaxial planar type

For CATV tuner



Marking Symbol: 7A

■ Features

- S-Mini type package, allowing downsizing of equipment and automatic insertion through the taping package

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	34	V
Maximum peak reverse voltage *	V_{RM}	35	V
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: $R_L = 10\ k\Omega$

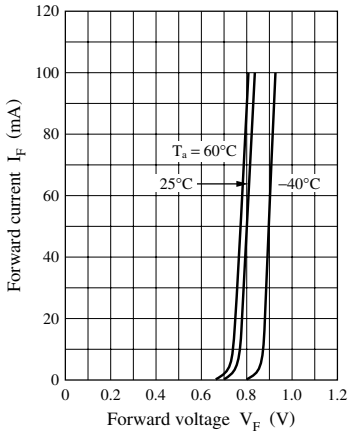
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	I_R	$V_R = 30$ V			10	nA
Diode capacitance	$C_{D(0V)}$ *3	$V_R = 0$ V, f = 1 MHz	87			pF
	$C_{D(2V)}$	$V_R = 2$ V, f = 1 MHz	44.00		50.79	
	$C_{D(25V)}$	$V_R = 25$ V, f = 1 MHz	2.60		3.03	
	$C_{D(10V)}$	$V_R = 10$ V, f = 1 MHz	8.80		13.08	
	$C_{D(17V)}$	$V_R = 17$ V, f = 1 MHz	3.70		5.04	
Capacitance ratio	$C_{D(2V)} / C_{D(25V)}$		15.0			—
Diode capacitance deviation *1	ΔC	$C_{D(2V)(10V)(17V)(25V)}$			2.0	%
Series resistance *2	r_D	$C_D = 9$ pF, f = 470 MHz			0.9	Ω

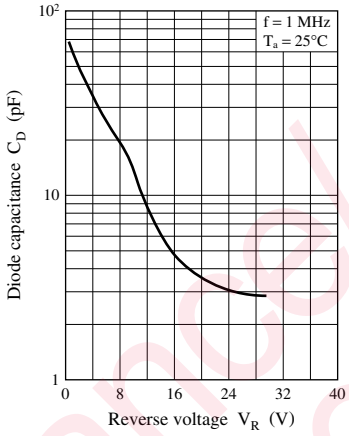
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 470 MHz.
3. ∗1: Being matching by selection:
Matching is done at $V_R = 2$ V, 10 V, 17 V, 25 V and capacitance difference of one group diode is limited within 2.0%.
∗2: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER
∗3: Measurement at low signal level

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

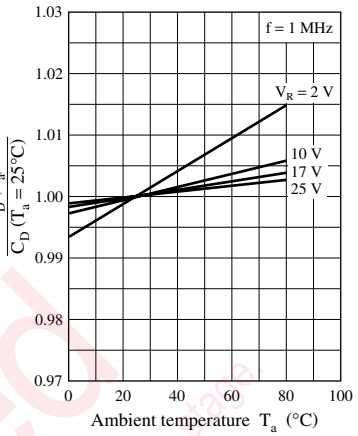
I_F — V_F



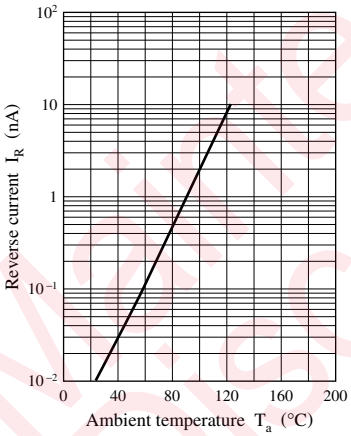
C_D — V_R



C_D — T_a

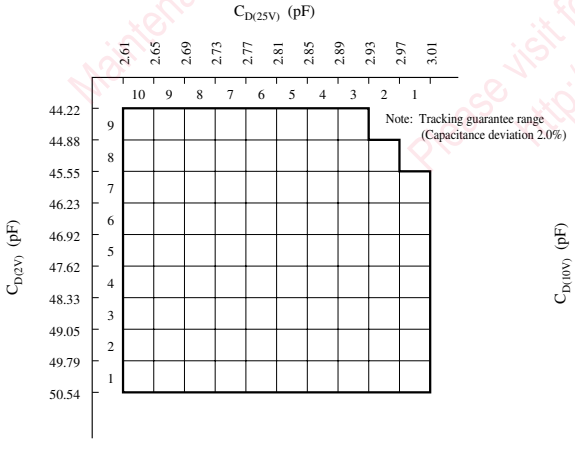


I_R — T_a

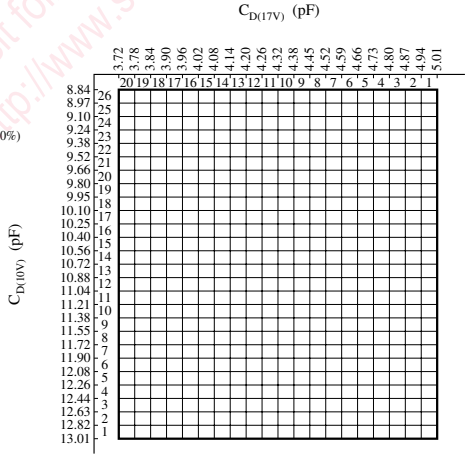


C_D rank classification

Primary rank classification



Secondary rank classification



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