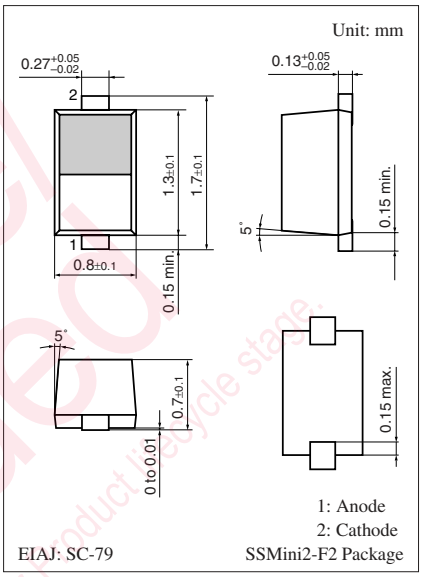
MA2S357

Silicon epitaxial planar type

For CATV tuner



Marking Symbol: N

■ Features

- Large capacitance ratio
- Small series resistance r_D
- SS-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

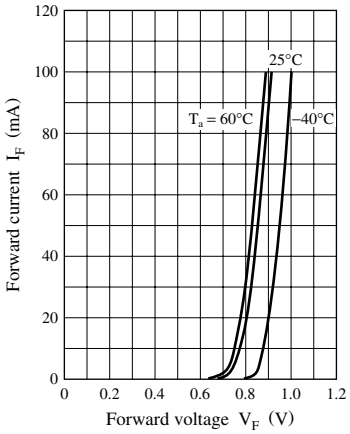
Note) *: $R_L = 10\ k\Omega$

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

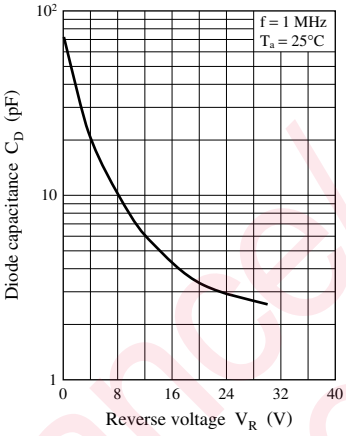
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	I_R	$V_R = 30$ V			10	nA
Diode capacitance	$C_{D(0V)}$ *1	$V_R = 0$ V, f = 1 MHz	58.0			pF
	$C_{D(2V)}$	$V_R = 2$ V, f = 1 MHz	29.00		34.30	
	$C_{D(25V)}$	$V_R = 25$ V, f = 1 MHz	2.53		2.92	
	$C_{D(10V)}$	$V_R = 10$ V, f = 1 MHz	6.40		8.32	
	$C_{D(17V)}$	$V_R = 17$ V, f = 1 MHz	3.50		4.35	
Capacitance ratio	$C_{D(2V)}/C_{D(25V)}$		11.0			—
Diode capacitance deviation	ΔC	$C_{D(2V)(10V)(17V)(25V)}$			2.0	%
Series resistance *2	r_D	$C_D = 9$ pF, f = 470 MHz			0.54	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: Measurement at Low signal level
*2: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER

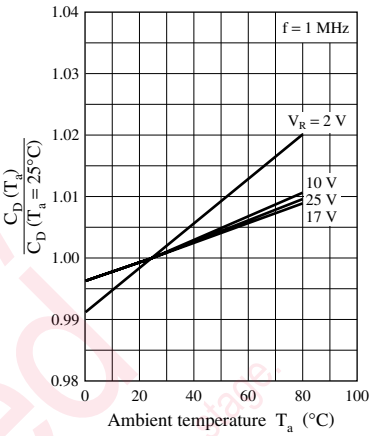
I_F — V_F



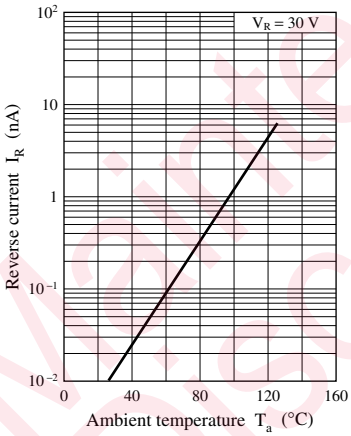
C_D — V_R



C_D — T_a



I_R — T_a



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