

# MA357J

Silicon epitaxial planer type

For CATV tuner

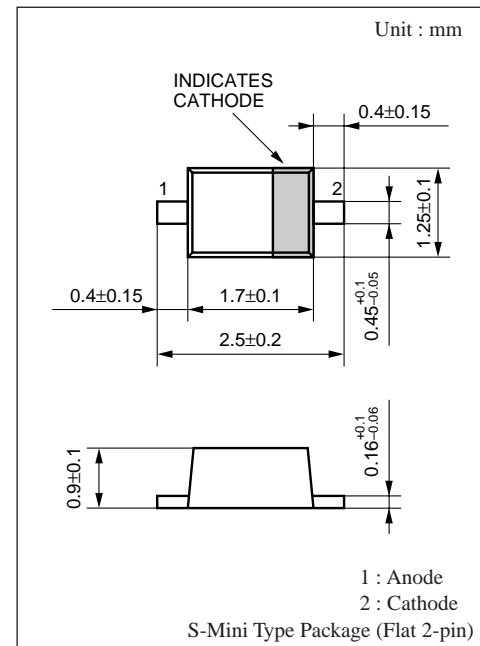
## ■ Features

- Large capacity variation ratio
- Small series resistance  $r_D$

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	34	V
Peak reverse voltage	$V_{RM}^*$	35	V
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	- 55 to +150	$^\circ\text{C}$

\*  $R_L = 10\text{k}\Omega$



Marking Symbol : 7K

## ■ Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

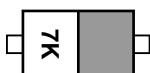
Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	$I_R$	$V_R = 30\text{V}$			10	nA
Diode capacitance	$C_{D(0V)}^{*2}$	$V_R = 0\text{V}, f = 1\text{MHz}$	58.0			pF
	$C_{D(2V)}$	$V_R = 2\text{V}, f = 1\text{MHz}$	29.00		34.30	pF
	$C_{D(25V)}$	$V_R = 25\text{V}, f = 1\text{MHz}$	2.53		2.92	pF
	$C_{D(10V)}$	$V_R = 10\text{V}, f = 1\text{MHz}$	6.40		8.32	pF
	$C_{D(17V)}$	$V_R = 17\text{V}, f = 1\text{MHz}$	3.50		4.35	pF
Capacitance ratio	$C_{D(2V)}/C_{D(25V)}$		11.0			—
Diode capacitance deviation	$\Delta C$	$C_{D(2V)}(10V)(17V)(25V)$			2.0	%
Series resistance	$r_D^{*1}$	$C_D = 9\text{pF}, f = 470\text{MHz}$			0.54	$\Omega$

Note 1. Rated input/output frequency : 470MHz

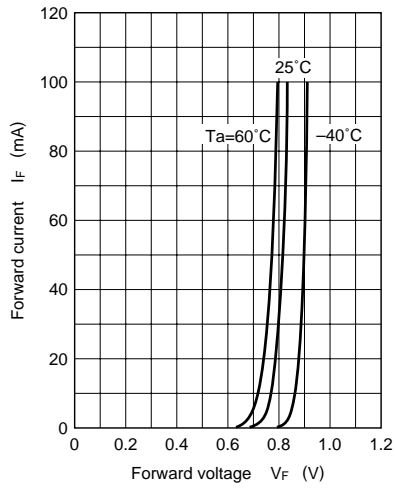
2.  $*1$  :  $r_D$  measurement device : YHP MODEL 4191A RF IMPEDANCE ANALYZER

3.  $*2$  : Low Signal Level

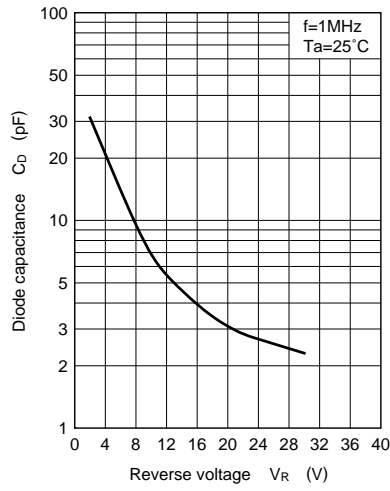
## ■ Marking



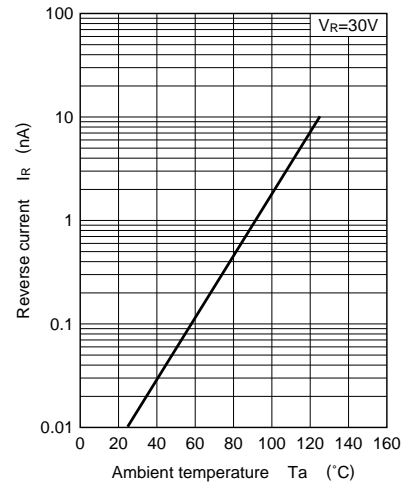
$I_F - V_F$



$C_D - V_R$



$I_R - T_a$



$C_D - T_a$

