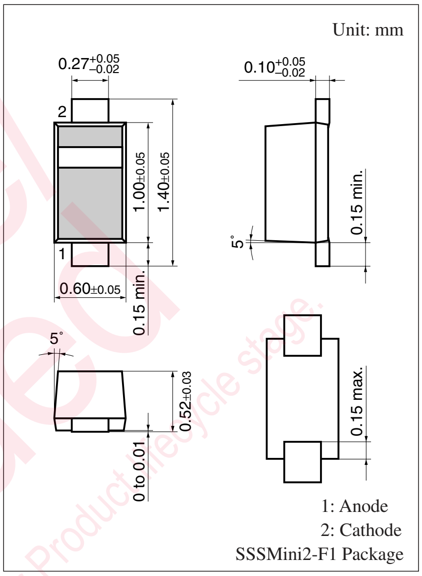
MA27V13

Silicon epitaxial planar type

For VCO



Marking Symbol: F

■ Features

- Good linearity and large capacitance-ratio in $C_D - V_R$ relation
- High frequency type by this low capacitance
- SSS-Mini type package, allowing downsizing of equipment and automatic insertion through the taping package

■ Absolute Maximum Ratings $T_a = 25°C$

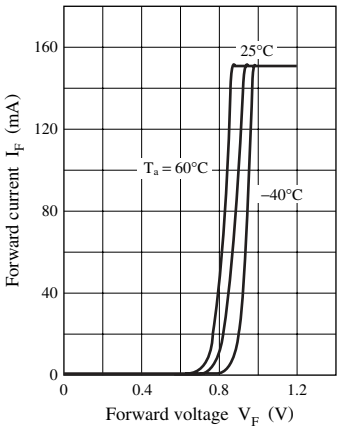
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	12	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

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

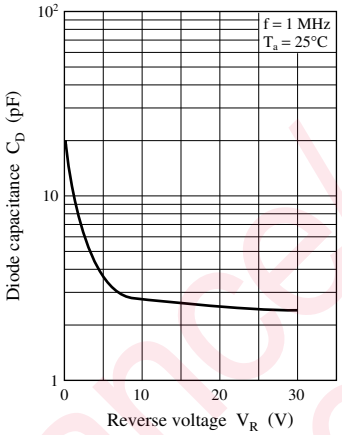
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current	I_R	V_R = 10 V			10	nA
Diode capacitance	$C_{D(1V)}$	V_R = 1 V, f = 1 MHz	11.12		12.29	pF
	$C_{D(3V)}$	V_R = 3 V, f = 1 MHz	5.25		5.81	
Capacitance ratio	$C_{D(1V)} / C_{D(3V)}$		2.01		2.23	—
Series resistance *	r_D	V_R = 3 V, f = 470 MHz			0.40	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. ∗: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER

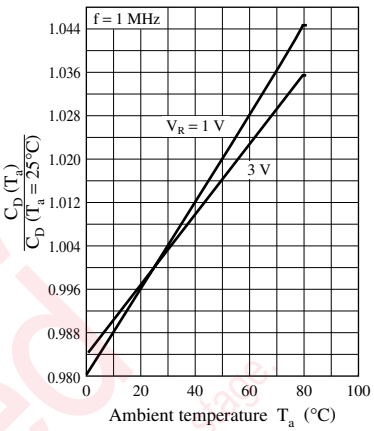
I_F — V_F



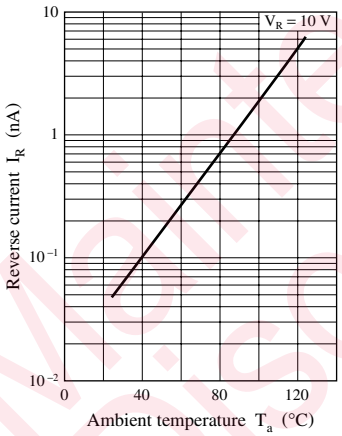
C_D — V_R



C_D — T_a



I_R — T_a



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