

**SONY**

**1T379**

**Silicon Variable Capacitance Diode for Electronic Tuning of BS and CS Tuners**

**Description**

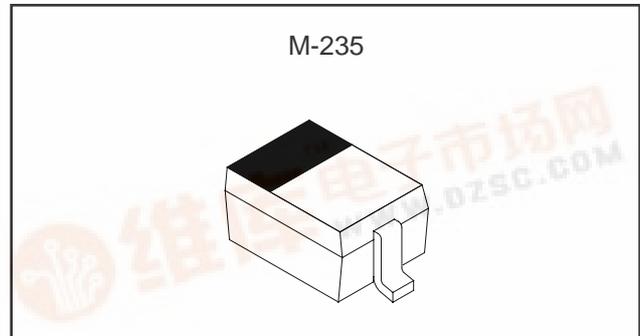
The 1T379 is a variable capacitance diode designed for the electronic tuning of BS and CS tuners, and it has a super miniature package.

**Features**

- Super miniature package
- Small series resistance 1.50 Ω Max. (f=470 MHz)
- Large capacitance ratio 12.0 Typ. (C<sub>1</sub>/C<sub>25</sub>)
- Small capacitance 0.60 pF Max. (V<sub>R</sub>=25 V)

**Structure**

Silicon epitaxial planar-type diode



**Absolute Maximum Ratings (Ta=25 °C)**

- Reverse voltage V<sub>R</sub> 30 V
- Maximum reverse voltage V<sub>RM</sub> 35 V (R<sub>L</sub>≥10 kΩ)
- Operating temperature T<sub>opr</sub> -20 to +75 °C
- Storage temperature T<sub>stg</sub> -65 to +150 °C

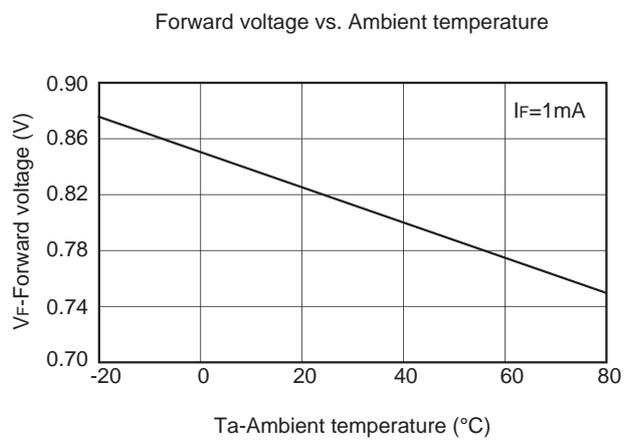
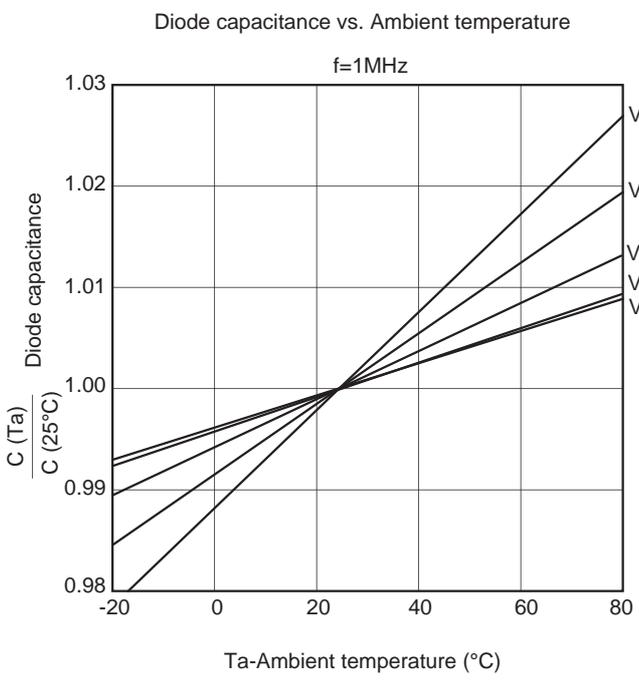
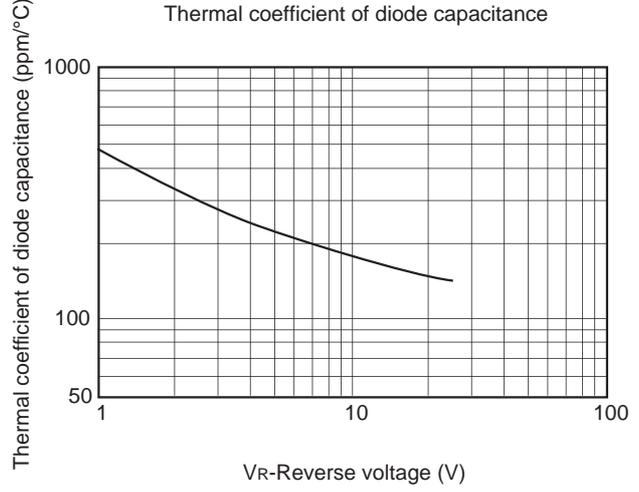
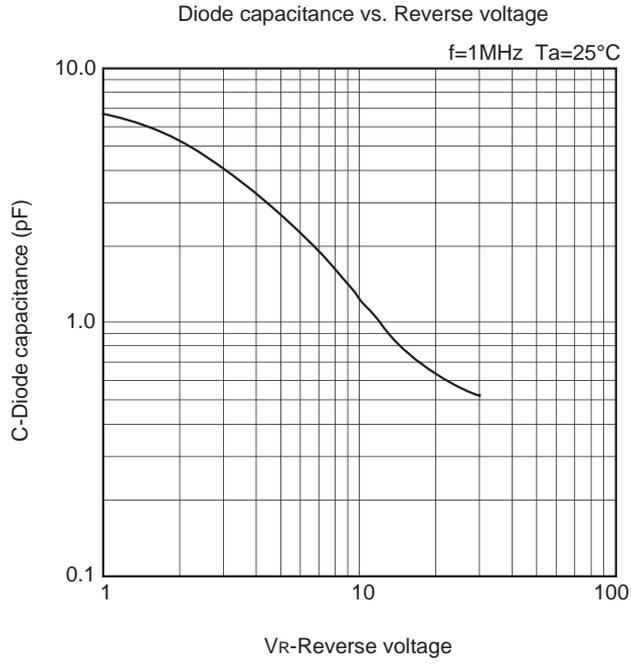
**Electrical Characteristics**

(Ta=25 °C)

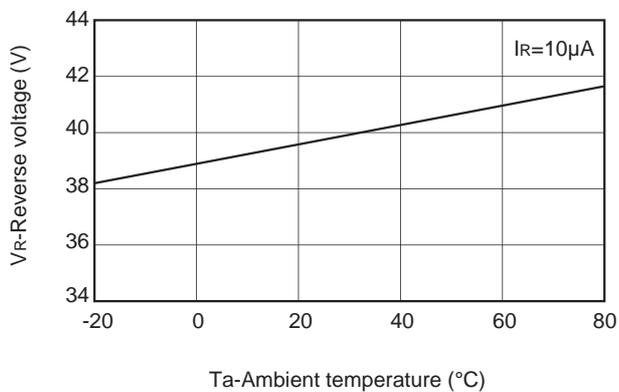
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse current	I <sub>R</sub>	V <sub>R</sub> =25 V			10	nA
Reverse voltage	V <sub>R</sub>	I <sub>R</sub> =1 μA	30			V
Diode capacitance	C <sub>1</sub>	V <sub>R</sub> =1 V, f=1 MHz	6.0		7.2	pF
	C <sub>25</sub>	V <sub>R</sub> =25 V, f=1 MHz	0.5		0.6	pF
Capacitance ratio	C <sub>1</sub> /C <sub>25</sub>	f=1 MHz	10.0	12.0		
Series resistance	r <sub>s</sub>	V <sub>R</sub> =5 V, f=470 MHz			1.50	Ω
Capacitance deviation in a matching group	ΔC	V <sub>R</sub> =1 to 25 V, f=1 MHz			6	%

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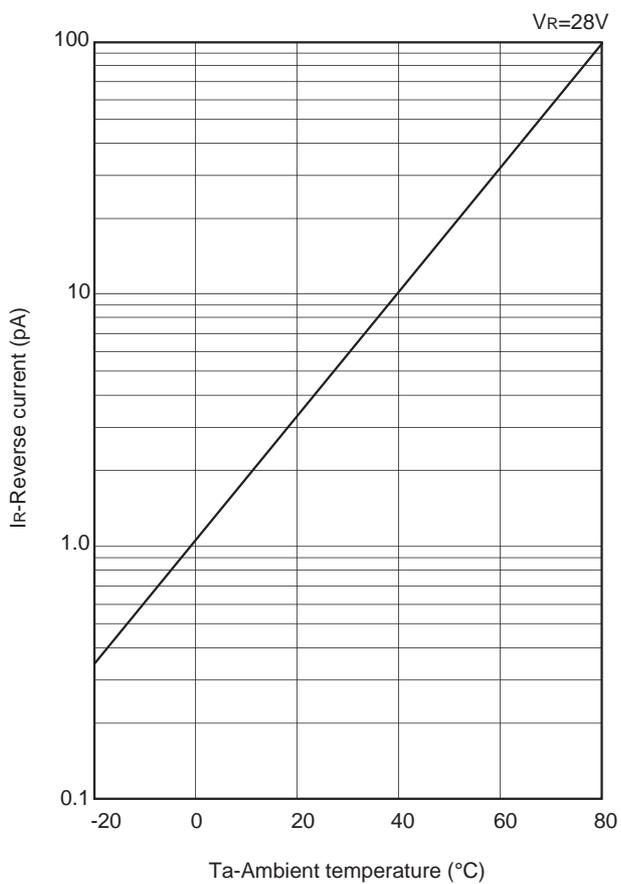




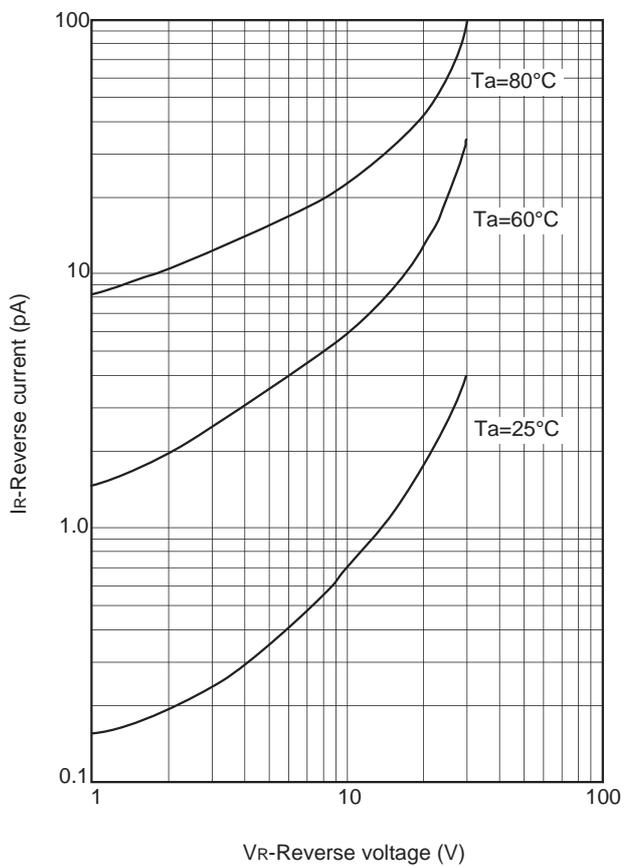
Reverse voltage vs. Ambient temperature



Reverse current vs. Ambient temperature

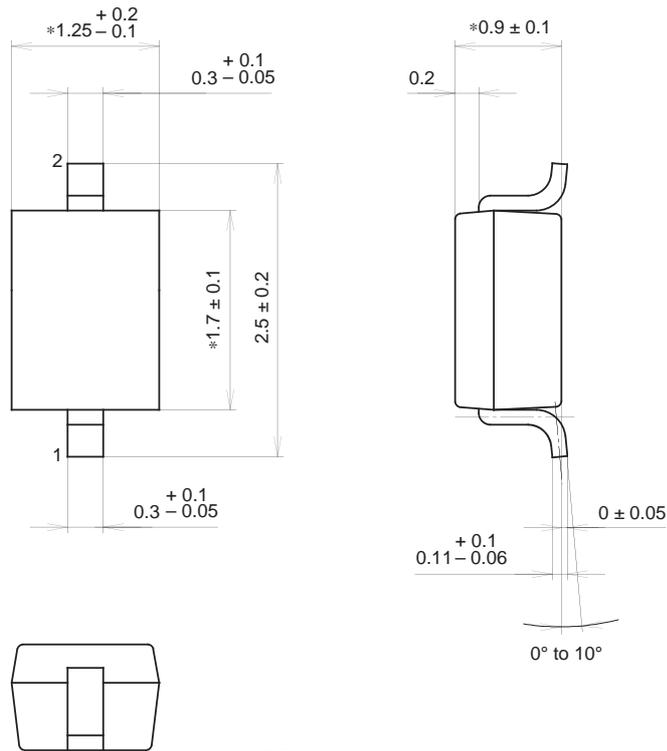


Reverse current vs. Reverse voltage



Package Outline Unit : mm

M-235

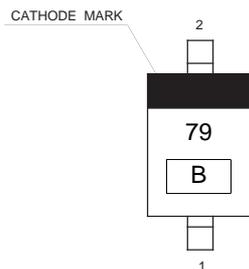


NOTE: Dimension "\*" does not include mold protrusion.

SONY CODE	M-235
EIAJ CODE	—
JEDEC CODE	—

PACKAGE WEIGHT	0.1g
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Marking



Notes

- 1) B: Lot No. (Year and Month of manufacture)  
 Year; Last one digit  
 Month; A, B, C (for Oct. to Dec.)  
 1 to 9 (for Jan. to Sept.)