



SVC388 — AM Low Voltage Electronic Tuning Applications

Hyper-Abrupt Junction Type Silicon Composite Varactor

Features

- Twin type varactor diode for AM electronic tuning use.
- High capacitance ratio and high quality factor.
- Provided in a tape and reel packaging format.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	T_J		125	°C
Storage Temperature	T_{stg}		-55 to +125	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current (One diode)	I_R	$V_R=9V$			100	nA
Interterminal Capacitance (Capacitance value of one diode)	C_{1V}	$V_R=1V, f=1MHz$ *1	470*		525*	pF
	C_{6V}	$V_R=6V, f=1MHz$		55		pF
	C_{8V}	$V_R=8V, f=1MHz$	20		26	pF
Quality Factor	Q	$V_R=1V, f=1MHz$	200			
Capacitance Ratio	CR	$C_{1V} / C_{8V}, f=1MHz$	18.5			
Matching Tolerance *2	ΔC_m	$(C_{max}-C_{min}) / C_{min} \times 100$				
		$V_R=1V, f=1MHz$			1.5	%
		$V_R=6V, f=1MHz$			2.0	%
		$V_R=8V, f=1MHz$			2.0	%

*1 : 1MHz signal : 20mVrms

*2 : Between D1 and D2 Matching Tolerance

* : SVC388 are classified by C_{1V} as right :

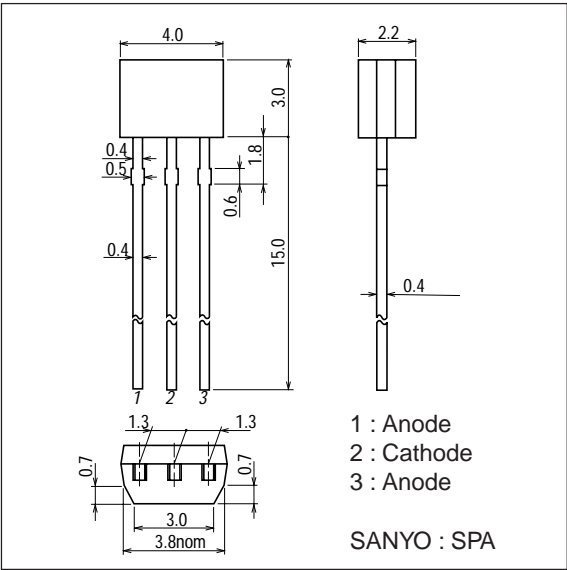
Rank	$C_{1V}(pF)$
S	470 to 505
T	485 to 525

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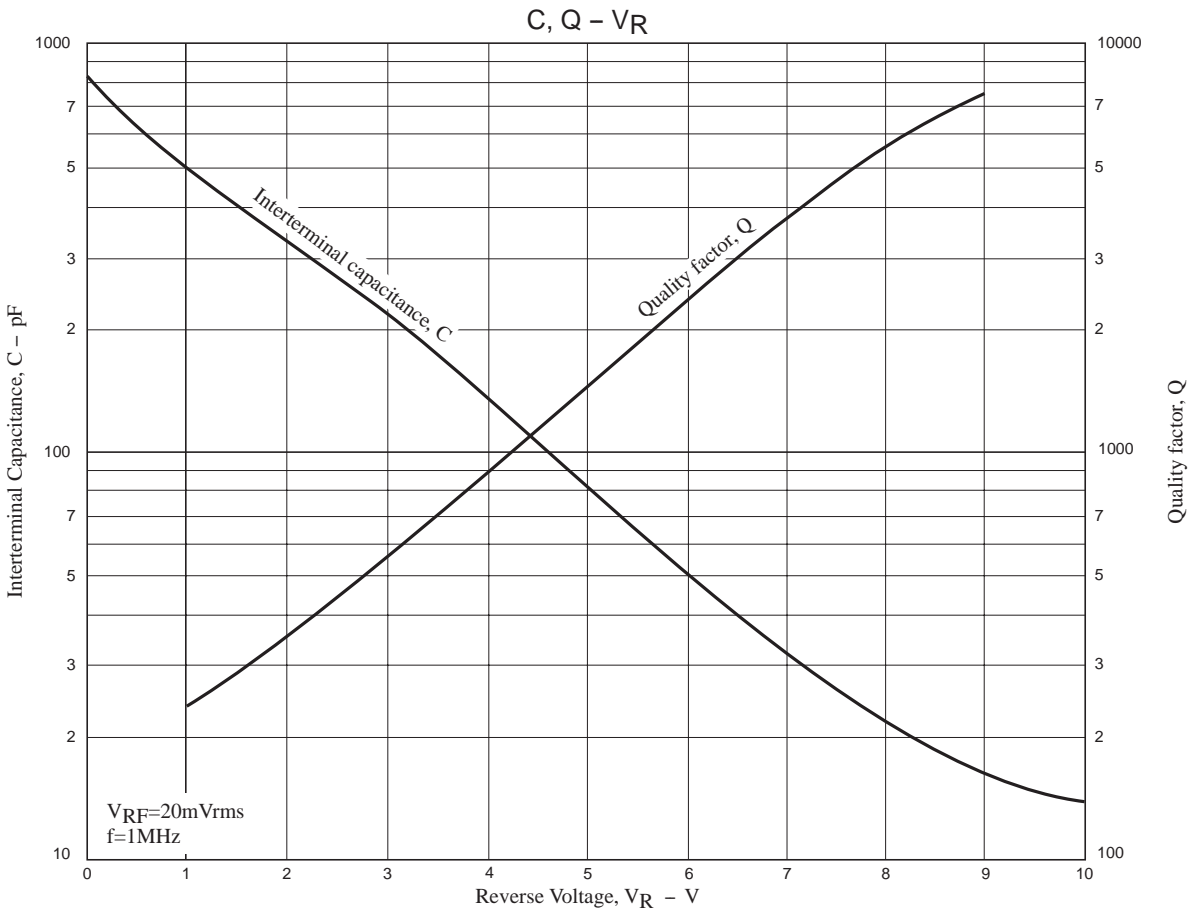
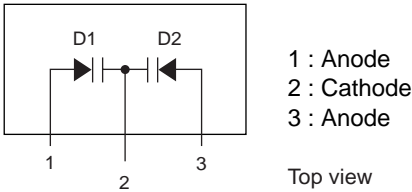
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Package Dimensions

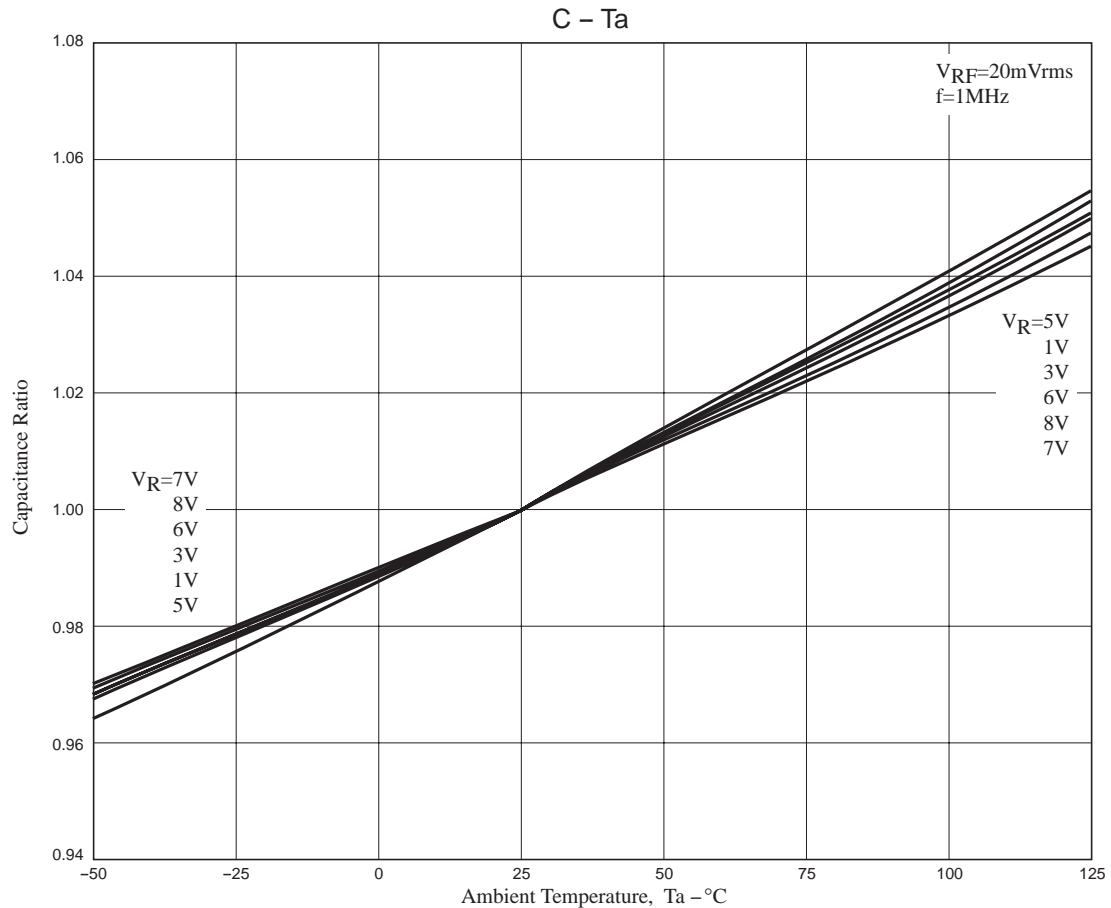
unit : mm
1292



Electrical Connection



IT08217



IT08218

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