

HVB27WK

Variable Capacitance Diode for FM tuner

REJ03G0093-0100Z

(Previous: ADE-208-594)

Rev.1.00 Sep.18.2003

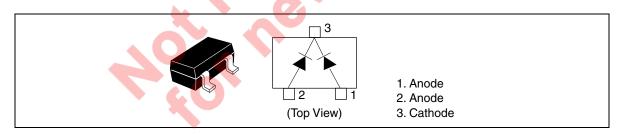
Features

- High capacitance ratio.
- Low series resistance. $(r_s = 0.4 \Omega \text{ max})$
- Good linearity of C-V curve.
- To be usable at low voltage.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HVB27WK	T5	СМРАК

Pin Arrangement



Absolute Maximum Ratings *1

 $(Ta = 25^{\circ}C)$

Item	Symbol	Value	Unit	
Reverse voltage	V _R	15	V	
Junction temperature	Tj	125	°C	
Storage temperature	Tstg	-55 to +125	°C	

Note: 1. Per one device.

Electrical Characteristics *3

 $(Ta = 25^{\circ}C)$

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse current	I _{R1}	_	_	10	nA	$V_R = 9 V$
	I _{R2}	_	_	100		$V_{R} = 9 \text{ V}, Ta = 60^{\circ}\text{C}$
Capacitance	C ₁	52.0	_	62.0	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
	C ₂	43.0	_	48.0		V _R = 2 V, f = 1 MHz
	C ₈	24.0	-	28.0	0	V _R = 8 V, f = 1 MHz
Capacitance ratio	n ₁	1.8	(-)			C ₁ /C ₈
	n ₂	1.7	<i>A</i>	7		C ₂ /C ₈
Series resistance	r _s	-	_	0.4	Ω	V _R = 2 V, f = 100 MHz
Matching error	ΔC/C*1		-	3.0	%	V _R = 1 to 8 V, f = 1 MHz

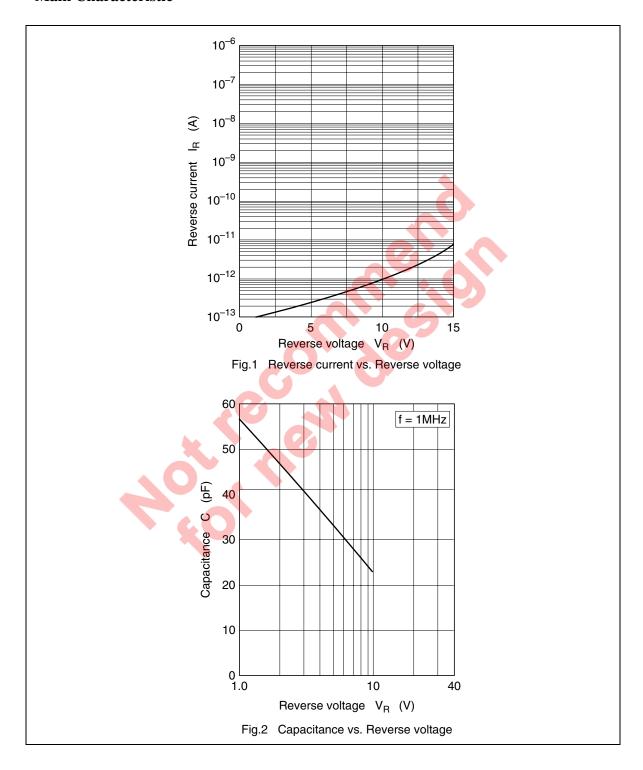
Notes: 1. A set of HVB27WK is of uniform C-V characteristics.

Measure max. value and min. value of capacitance at each bias point of $V_R = 1 \text{ V}$ through 8 V. Calculate Matching Error,

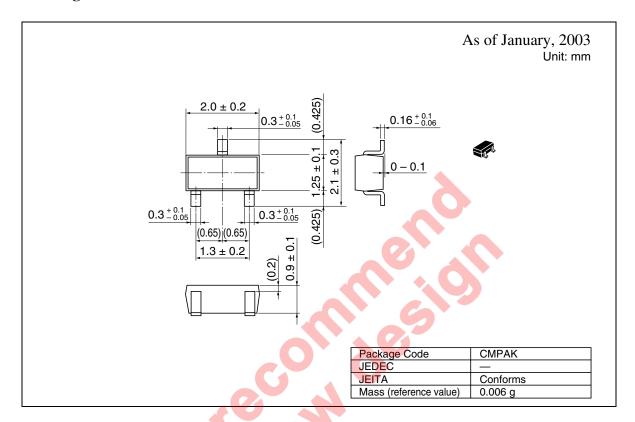
$$\Delta C/C = \frac{(Cmax - Cmin)}{Cmin} \times 100 (\%)$$

- 2. Each group shall uniform a multiple of 4 diodes.
- 3. Per one device.

Main Characteristic



Package Dimensions



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