

## VARIABLE CAPACITANCE DIODE

### FEATURES

- Very Low Operating Voltage (1 to 6.5 V)
- Excellent Linearity (CV Curve)
- Large Capacitance Ratio (A = 4.70 minimum)
- Two Diodes in a 3 Lead Through-Hole Discrete Package (TO92-3)
- Very Small Capacitance Deviation at Tape/Reel

### DESCRIPTION

The KV1360NT variable capacitance diode was specially developed for use as FM tuning elements in car radios, radio cassettes, and other consumer radios.

The KV1360NT uses a special process to provide a very high capacitance ratio in low voltage operation.

The KV1360NT is available in a TO92-3 package.

### APPLICATIONS

- FM Radio
- Voltage Controlled Oscillator
- Battery Operated Products

### CLASSIFICATION

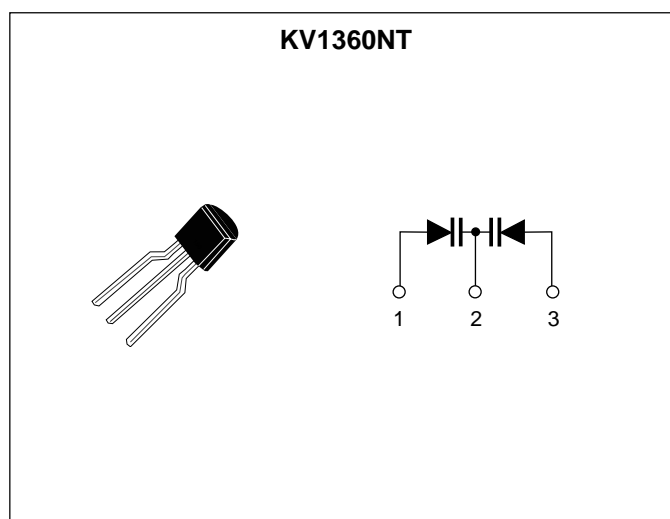
(Unit: pF)

RANK		1A	2A	3A
C	MIN	86.10	89.60	93.30
	MAX	90.50	94.10	98.00

### ORDERING INFORMATION

KV1360NT

Note: The KV1360NT is supplied on folded paper tape (25 pieces per fold) 1500 pcs per box.



# KV1360NT

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## ABSOLUTE MAXIMUM RATINGS

Reverse Voltage ..... 18V  
Forward Current ..... 50 mA  
Power Dissipation ..... 100 mW

Storage Temperature Range ..... -55 to +150 °C  
Operating Temperature Range ..... -55 to +85 °C

## ELECTRICAL CHARACTERISTICS

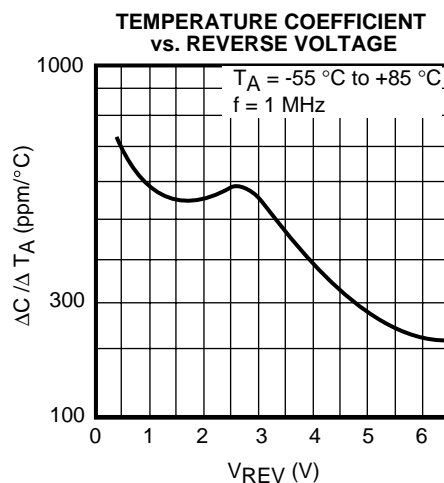
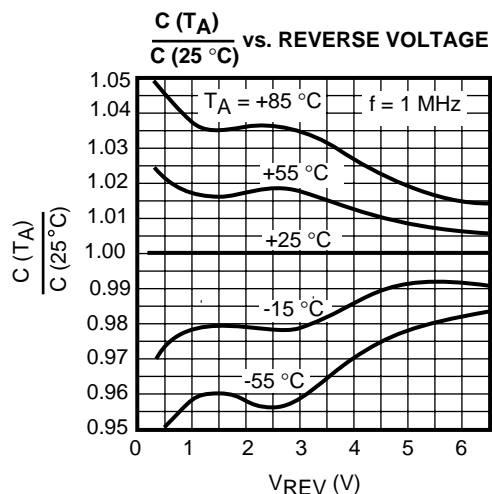
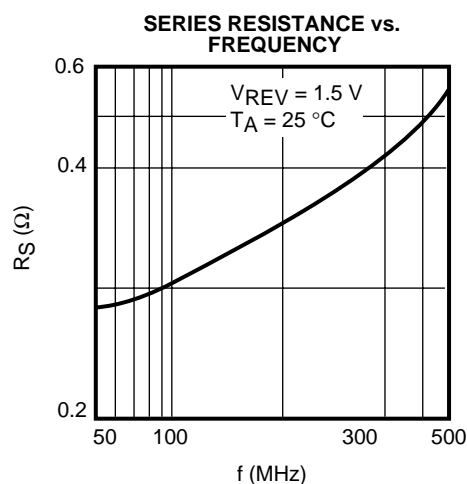
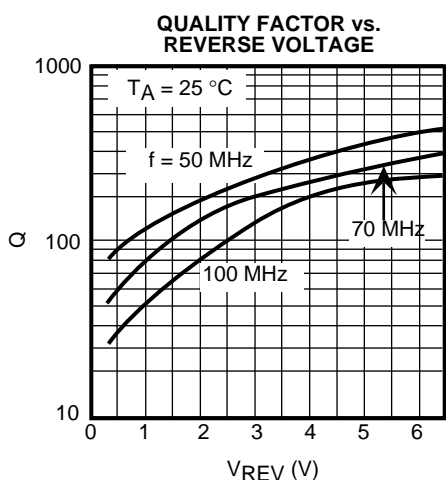
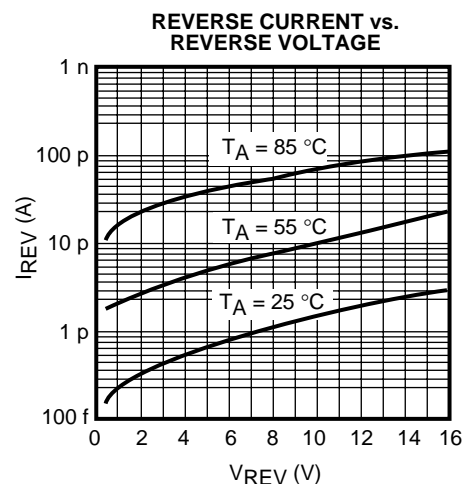
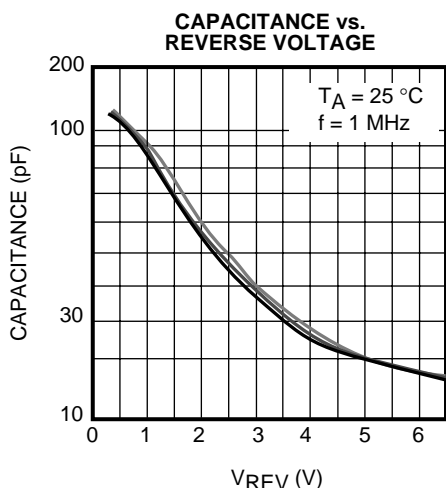
Test conditions:  $T_A = 25\text{ °C}$

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$V_{REV}$	Reverse Voltage	$I_{REV} = 10\text{ }\mu\text{A}$	16			V
$I_{REV}$	Reverse Current	$V_{REV} = 10.0\text{ V}$			50	nA
$C_1$	Diode Capacitance 1	$V_{REV} = 1.0\text{ V}$ , $f = 1\text{ MHz}$	86.10	92.00	98.00	pF
$C_{6.5}$	Diode Capacitance 6.5	$V_{REV} = 6.5\text{ V}$ , $f = 1\text{ MHz}$	13.90	16.00	18.20	pF
$R_S$	Series Resistance	$V_{REV} = 1.5\text{ V}$ , $f = 100\text{ MHz}$		0.5	0.6	$\Omega$
A	Capacitance Ratio	$C_1 / C_{6.5}$	4.70			

Note 1: Diode Capacitance measured with HP 4279A or equivalent instruments (at OSC level 20 mVrms,  $\pm 5\text{ mVrms}$ ).

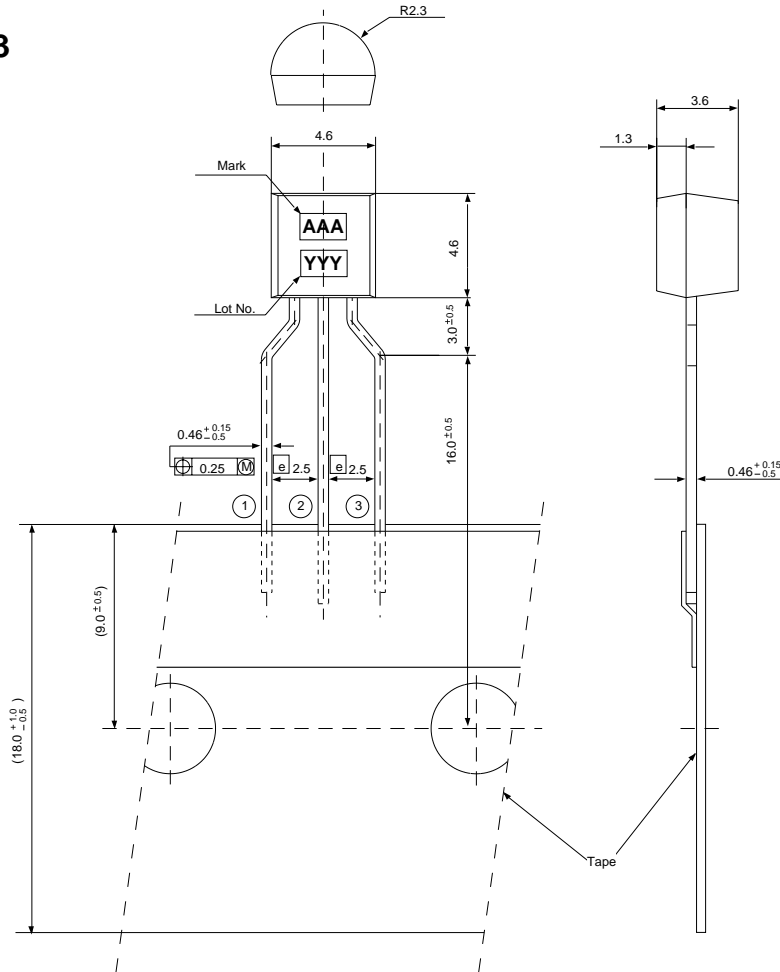
Note 2: Series Resistance measured with HP 4191A or equivalent instruments.

## TYPICAL PERFORMANCE CHARACTERISTICS



## PACKAGE OUTLINE

T092-3



Dimensions are shown in millimeters  
Tolerance: x.x = ± 0.2 mm (unless otherwise specified)

## Marking Information

Product Code 360



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