

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

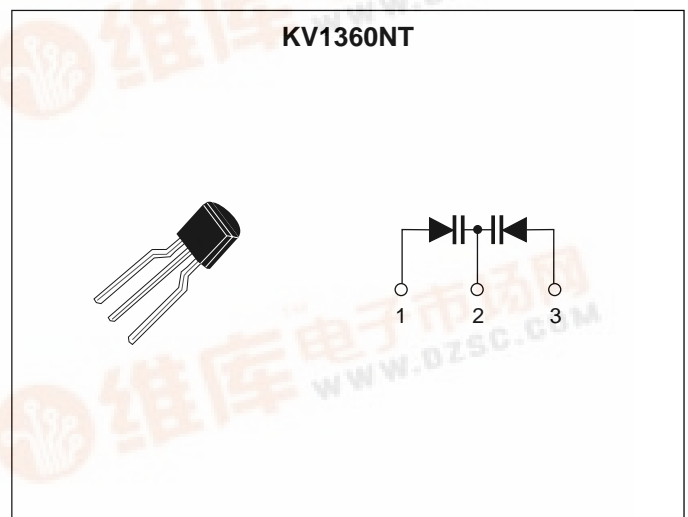
(Unit: pF)

C		RANK	1A	2A	3A
		MIN	86.10	89.60	93.30
C ₁		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

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

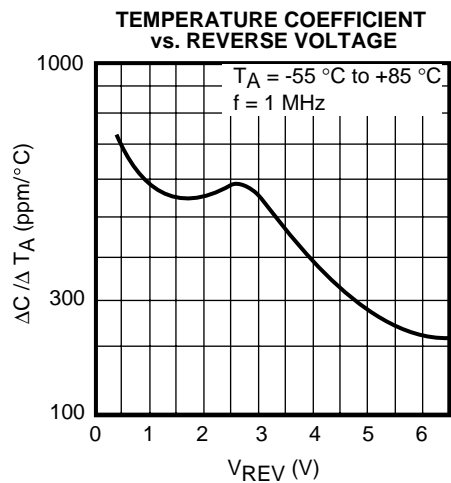
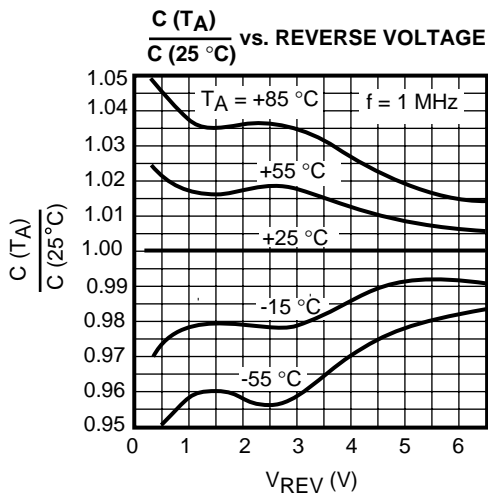
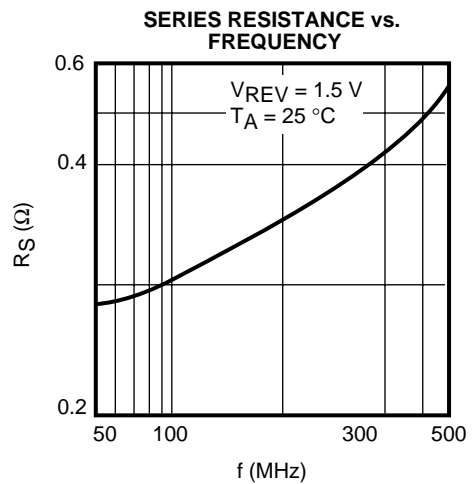
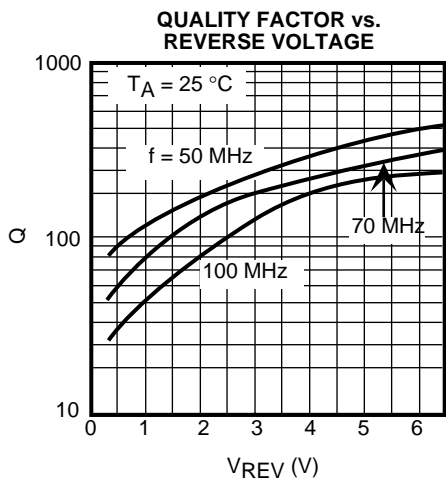
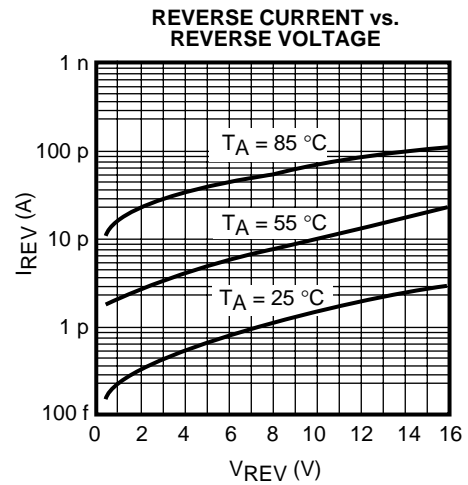
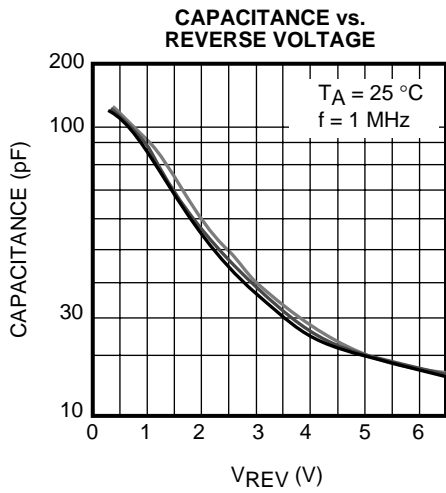
Test conditions: $T_A = 25\text{ °C}$

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V_{REV}	Reverse Voltage	$I_{REV} = 10\ \mu\text{A}$	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	Ω
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, $\pm 5\ \text{mVrms}$).

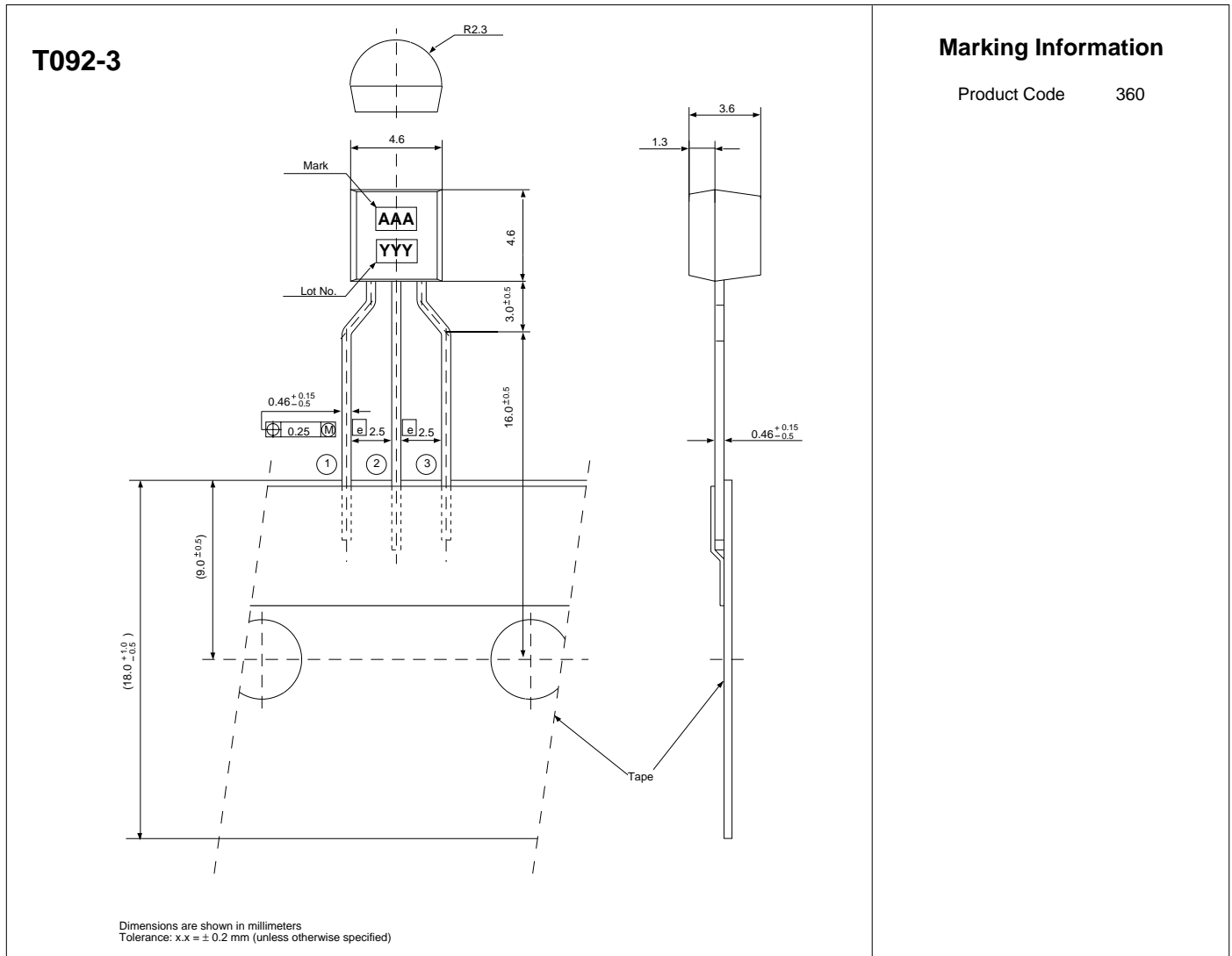
Note 2: Series Resistance measured with HP 4191A or equivalent instruments.

TYPICAL PERFORMANCE CHARACTERISTICS



KV1360NT

PACKAGE OUTLINE



Toko America, Inc. Headquarters
 1250 Feehanville Drive, Mount Prospect, Illinois 60056
 Tel: (847) 297-0070 Fax: (847) 699-7864

TOKO AMERICA REGIONAL OFFICES

Midwest Regional Office
 Toko America, Inc.
 1250 Feehanville Drive
 Mount Prospect, IL 60056
 Tel: (847) 297-0070
 Fax: (847) 699-7864

Western Regional Office
 Toko America, Inc.
 2480 North First Street, Suite 260
 San Jose, CA 95131
 Tel: (408) 432-8281
 Fax: (408) 943-9790

Eastern Regional Office
 Toko America, Inc.
 107 Mill Plain Road
 Danbury, CT 06811
 Tel: (203) 748-6871
 Fax: (203) 797-1223

Semiconductor Technical Support
 Toko Design Center
 4755 Forge Road
 Colorado Springs, CO 80907
 Tel: (719) 528-2200
 Fax: (719) 528-2375

Visit our Internet site at <http://www.tokoam.com>

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