# RETOKO

#### FEATURES

- Very Small URD Surface Mount Package
- Very Low Series Resistance
- Large Capacitance Ratio (A = 2.2 minimum)
- Excellent Linearity (CV Curve)
- Very Small Capacitance Deviation at Tape/Reel

#### DESCRIPTION

The KV1845E is a variable capacitance diode designed for UHF applications.

The KV1845E is available in a very small URD Surface Mount Package.

#### **CLASSIFICATION**

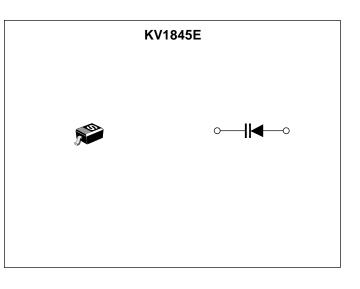
(Unit: pF)

c	RANK	1	2	3
C <sub>1</sub>	MIN	9.45	9.80	10.75
	MAX	10.05	11.00	11.35

Note: Rank is determined after testing and marked on the reel. All the diodes on a reel have the same rank, but rank can not be specified when ordering.

ORDERING INFORMATION
KV1845E DD Tape/Reel Code
TAPE/REEL CODE

TR: Tape Right



## VARIABLE CAPACITANCE DIODE

#### **APPLICATIONS**

- UHF Communications Equipment
- Voltage Controlled Oscillator
- 900 MHz Communications Systems

## **ABSOLUTE MAXIMUM RATINGS**

Reverse Voltage	15 V
Forward Current	7 mA
Power Dissipation	25 mW

## **ELECTRICAL CHARACTERISTICS**

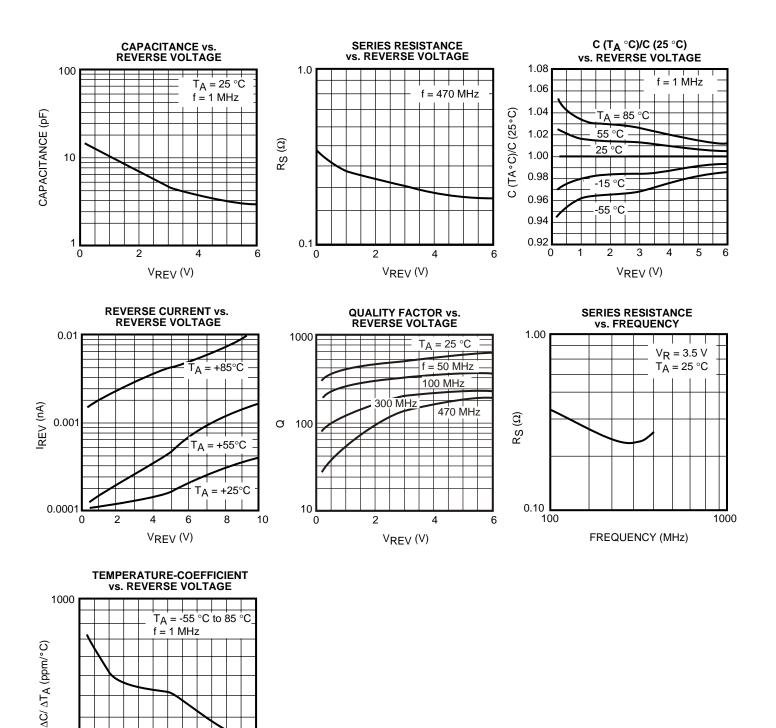
Test conditions:  $T_A = 25 \ ^{\circ}C$ 

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
V <sub>REV</sub>	Reverse Voltage	I <sub>REV</sub> = 1 μA	10			V
I <sub>REV</sub>	Reverse Current	$V_{REV} = 10 V$			5.00	nA
C <sub>1</sub>	Diode Capacitance 1	V <sub>REV</sub> = 1 V, f = 1 MHz	9.45	10.40	11.35	pF
C <sub>4</sub>	Diode Capacitance 4	$V_{REV} = 4 V, f = 1 MHz$	4.15	4.67	5.19	pF
R <sub>s</sub>	Series Resistance	C = 5 pF, f = 470 MHz		0.25	0.30	Ω
A	Capacitance Ratio	C <sub>1</sub> / C <sub>4</sub>	2.20			

Note 1: Diode Capacitance measured with HP 4279A or equivalent instruments (at OSC level 20 mVrms, ± 5 mVrms).

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





2

4

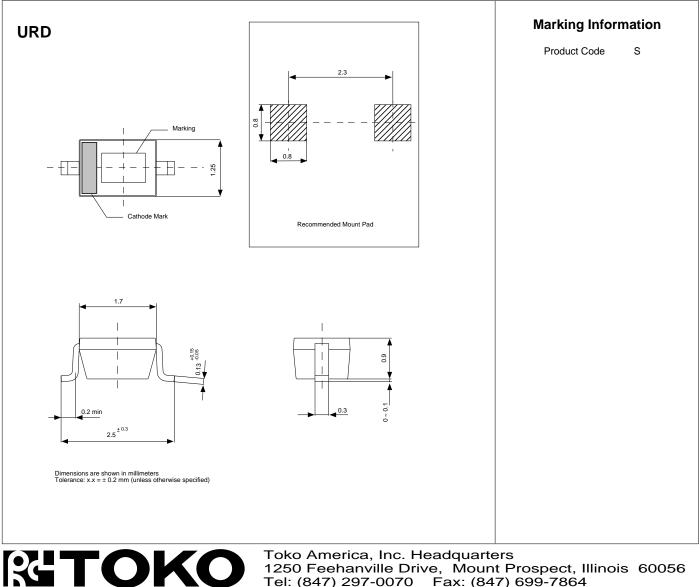
V<sub>REV</sub> (V)

6

100

0

## PACKAGE OUTLINE



Fax: (847) 699-7864 Tel: (847) 297-0070

#### 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

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