# **RYOKO**

VARIABLE CAPACITANCE DIODE

**APPLICATIONS** 

GPS Equipment

Voltage Controlled Oscillator

PCS and GSM Equipment

Dual Band/Dual Mode Cellular Equipment

#### **FEATURES**

- Very Small UFD Surface Mount Package
- Very Low Series Resistance
- Large Capacitance Ratio (A = 1.85 minimum)
- Excellent Linearity (CV Curve)
- Very Small Capacitance Deviation at Tape/Reel

### DESCRIPTION

The KV1847K is a variable capacitance diode designed for UHF applications.

The KV1847K is available in a very small UFD Surface Mount Package.

### **CLASSIFICATION**

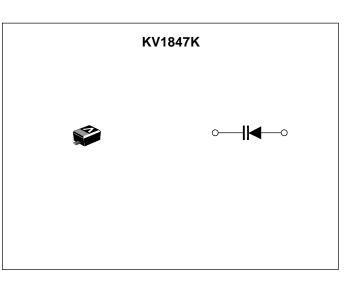
(Unit: pF)

c		1	2	3
C <sub>1</sub>	MIN	4.10	4.32	4.83
	MAX	4.47	4.98	5.20

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
KV1847K III Tape/Reel Code
TAPE/REEL CODE

TR: Tape Right



#### **ABSOLUTE MAXIMUM RATINGS**

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

#### **ELECTRICAL CHARACTERISTICS**

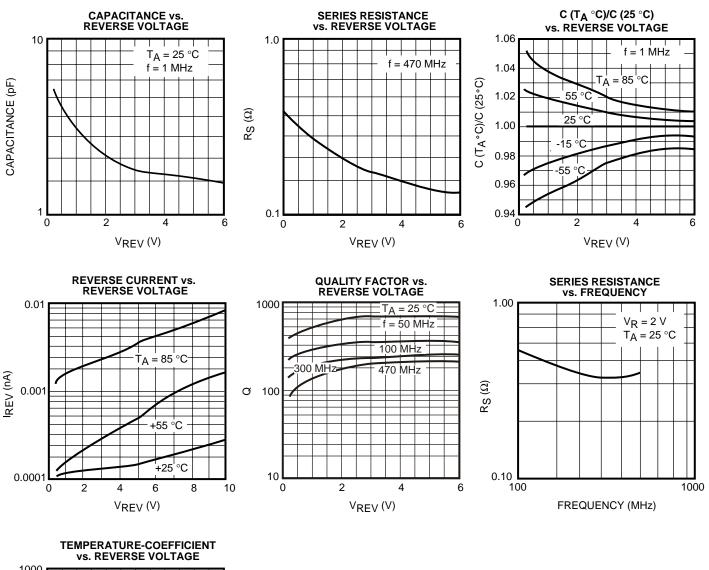
Test conditions:  $T_A = 25 \ ^{\circ}C$ 

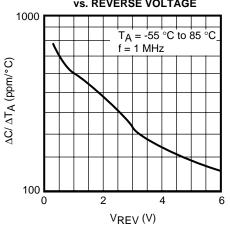
SYMBOL	PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
V <sub>REV</sub>	Reverse Voltage	I <sub>REV</sub> = 1 μA	10			V
I <sub>REV</sub>	Reverse Current	$V_{REV} = 10 V$			5.00	nA
C <sub>1</sub>	Diode Capacitance 1	V <sub>REV</sub> = 1 V, f = 1 MHz	4.1	4.65	5.2	pF
C <sub>4</sub>	Diode Capacitance 4	V <sub>REV</sub> = 4 V, f = 1 MHz	1.9	2.23	2.56	pF
R <sub>s</sub>	Series Resistance	C = 3 pF, f = 470 MHz		0.35	0.40	Ω
A	Capacitance Ratio	C <sub>1</sub> / C <sub>4</sub>	1.85			

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.

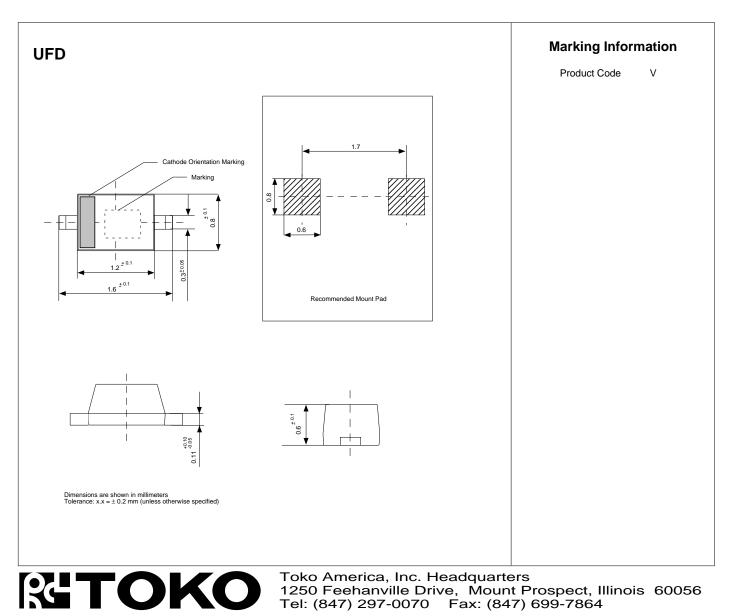






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## PACKAGE OUTLINE



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