

VARIABLE CAPACITANCE DIODE

FEATURES

- Very Small URD Surface Mount Package
- Very Low Operating Voltage (1 to 4 V)
- Large Capacitance Ratio ($A = 3.4$)
- Excellent Linearity (CV Curve)
- Very Small Capacitance Deviation at Tape/Reel
- Very Low Series Resistance

APPLICATIONS

- Communications Equipment
- Multi-Channel Cordless Telephone
- Voltage Controlled Oscillator
- UHF Wireless Communication Systems

DESCRIPTION

The KV1832E is a variable capacitance diode designed for UHF applications.

The KV1832E is available in a very small URD Surface Mount Package.


CLASSIFICATION

Unit: pF

RANK		1A	2A	3A	4A	5A
C	MIN	8.5	9.05	9.75	10.55	11.25
	MAX	9.15	9.85	10.65	11.35	11.90

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.

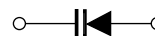
ORDERING INFORMATION

KV1832E 

Tape/Reel Code

TAPE/REEL CODE
TR: Tape Right

KV1832E



ABSOLUTE MAXIMUM RATINGS

Reverse Voltage 28 V
Forward Current 10 mA
Power Dissipation 50 mW

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

ELECTRICAL CHARACTERISTICS

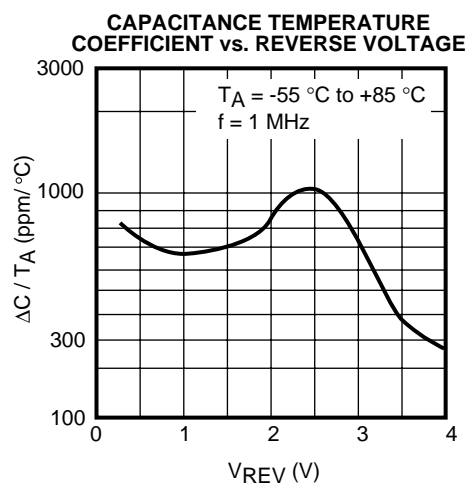
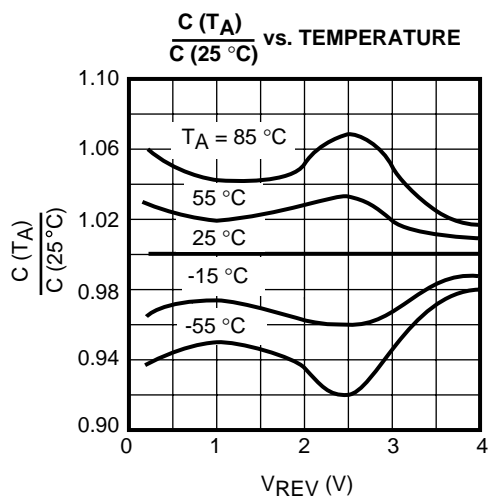
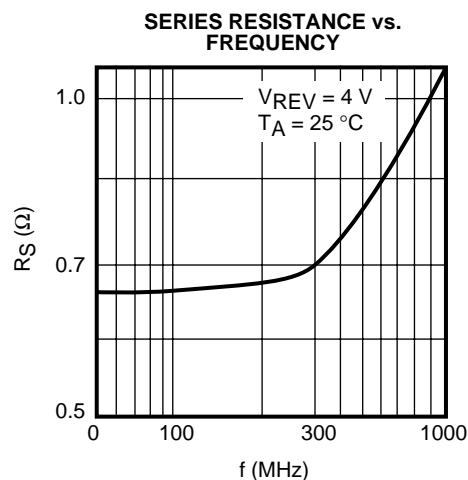
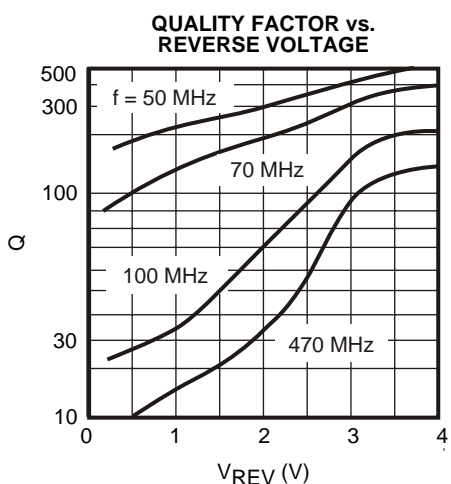
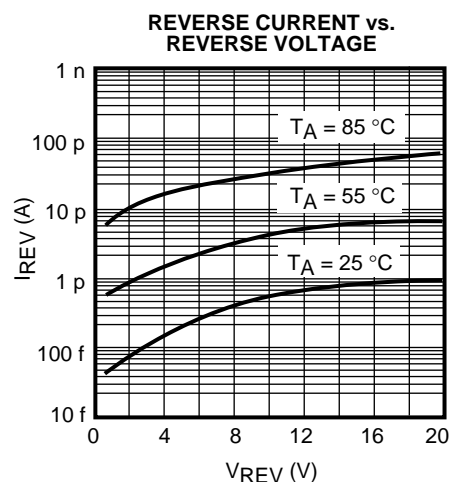
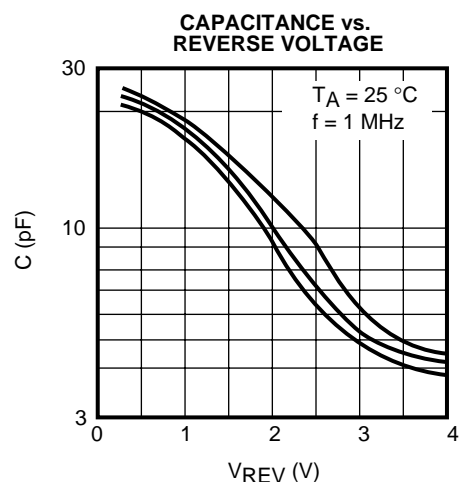
Test conditions: $T_A = 25\text{ °C}$

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V_{REV}	Reverse Voltage	$I_{REV} = 10\text{ }\mu\text{A}$	20			V
I_{REV}	Reverse Current	$V_{REV} = 16\text{ V}$			5.0	nA
C_1	Diode Capacitance 1	$V_{REV} = 1\text{ V}$, $f = 1\text{ MHz}$	15.40	16.60	17.90	pF
C_2	Diode Capacitance 2	$V_{REV} = 2\text{ V}$, $f = 1\text{ MHz}$	8.50	10.20	11.90	pF
C_4	Diode Capacitance 4	$V_{REV} = 4\text{ V}$, $f = 1\text{ MHz}$	3.60	4.30	5.05	pF
R_S	Series Resistance	$C = 7\text{ pF}$, $f = 470\text{ MHz}$			0.7	Ω
A	Capacitance Ratio	C_1 / C_4	3.4			

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

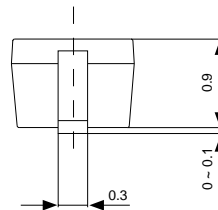
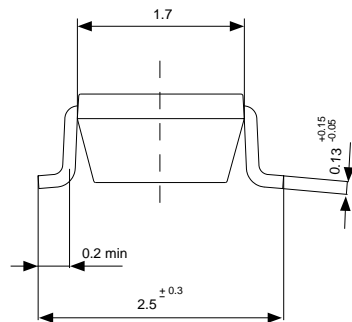
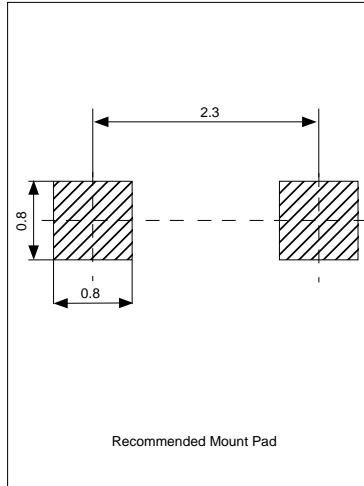
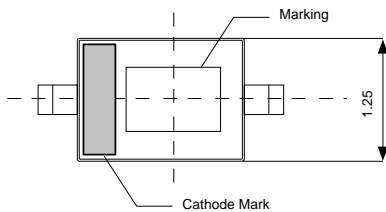
Note 2: Series Resistance measured with HP 4191A or equivalent instruments.

TYPICAL PERFORMANCE CHARACTERISTICS



PACKAGE OUTLINE

URD



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

Marking Information

Product Code C



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