



KV1845E

VARIABLE CAPACITANCE DIODE

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

APPLICATIONS

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

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)

RANK		1	2	3
C	MIN	9.45	9.80	10.75
	MAX	10.05	11.00	11.35

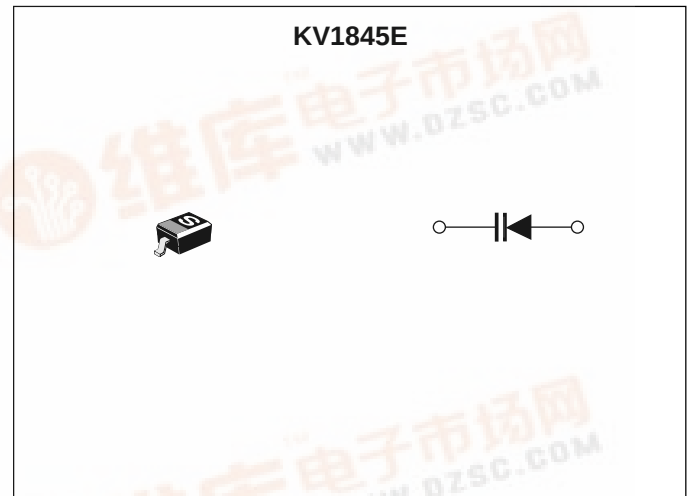
Note: Rank is determined after testing and marked on the reel. All the diodes on a reel have the same rank, but rank can not be specified when ordering.

ORDERING INFORMATION

KV1845E □□

Tape/Reel Code

TAPE/REEL CODE
TR: Tape Right



KV1845E

ABSOLUTE MAXIMUM RATINGS

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

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

ELECTRICAL CHARACTERISTICS

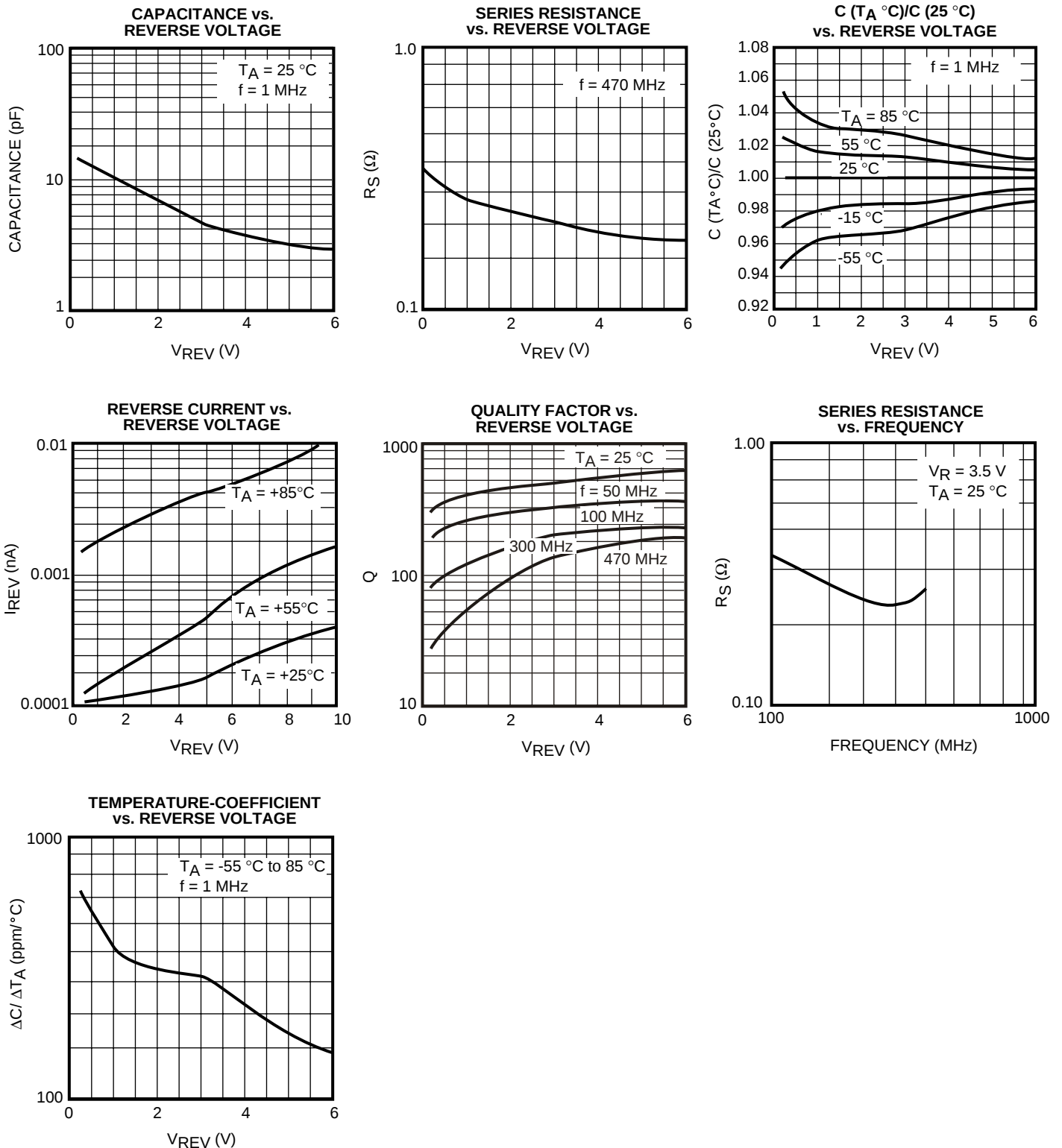
Test conditions: $T_A = 25\text{ °C}$

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V_{REV}	Reverse Voltage	$I_{REV} = 1\text{ }\mu\text{A}$	10			V
I_{REV}	Reverse Current	$V_{REV} = 10\text{ V}$			5.00	nA
C_1	Diode Capacitance 1	$V_{REV} = 1\text{ V}$, $f = 1\text{ MHz}$	9.45	10.40	11.35	pF
C_4	Diode Capacitance 4	$V_{REV} = 4\text{ V}$, $f = 1\text{ MHz}$	4.15	4.67	5.19	pF
R_S	Series Resistance	$C = 5\text{ pF}$, $f = 470\text{ MHz}$		0.25	0.30	Ω
A	Capacitance Ratio	C_1 / C_4	2.20			

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.

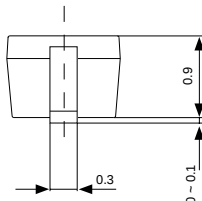
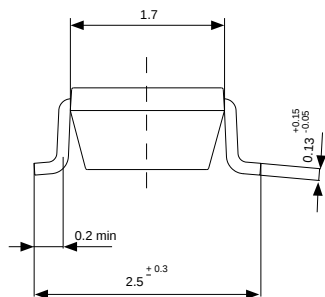
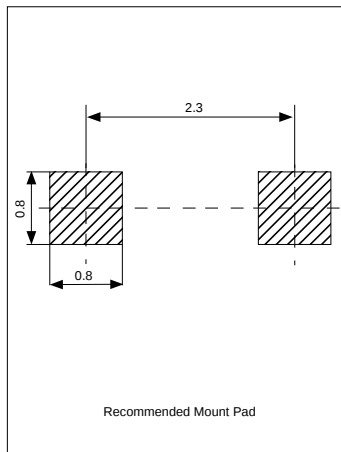
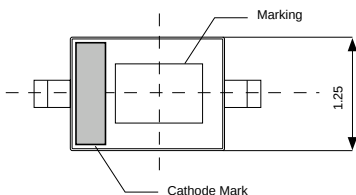
TYPICAL PERFORMANCE CHARACTERISTICS



KV1845E

PACKAGE OUTLINE

URD



Dimensions are shown in millimeters
Tolerance: x.x $\pm$ 0.2 mm (unless otherwise specified)

Marking Information

Product Code S



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