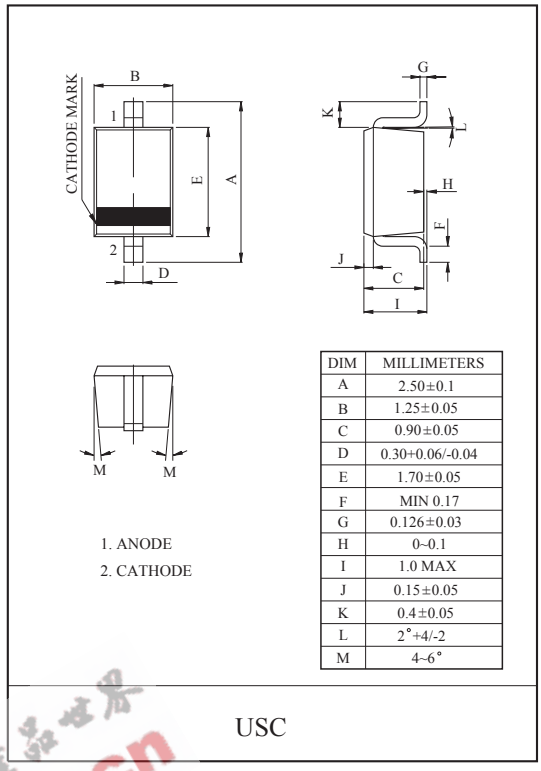
KDV214

VARIABLE CAPACITANCE DIODE
SILICON EPITAXIAL PLANAR DIODE

TV TUNING.

FEATURES

- High Capacitance Ratio : C2V/C25V=6.5(Typ.)
- Low Series Resistance : r_S=0.4Ω(Typ.)
- Excellent C-V Characteristics, and Small Tracking Error.
- Useful for Small Size Tuner.



DIM	MILLIMETERS
A	2.50±0.1
B	1.25±0.05
C	0.90±0.05
D	0.30+0.06/-0.04
E	1.70±0.05
F	MIN 0.17
G	0.126±0.03
H	0~0.1
I	1.0 MAX
J	0.15±0.05
K	0.4±0.05
L	2°+4/-2
M	4~6°

USC

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	30	V
Peak Reverse Voltage	V_{RM}	35 (R_L=10kΩ)	V
Junction Temperature	T_j	125	℃
Storage Temperature Range	T_{stg}	-55~125	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

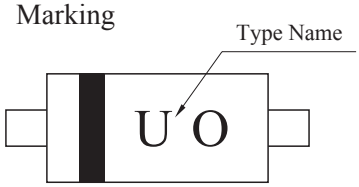
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	I_R=1μA	30	-	-	V
Reverse Current	I_R	V_R=28V	-	-	10	nA
Capacitance	C_{2V}	V_R=2V, f=1MHz	14.16	-	16.25	pF
Capacitance	C_{25V}	V_R=25V, f=1MHz	2.11	-	2.43	pF
Capacitance Ratio	C_{2V}/C_{25V}		5.90	6.50	7.15	-
Series Resistance	r_S	V_R=5V, f=470MHz	-	0.4	0.55	Ω

Note : Available in matched group for capacitance to 2.5%.

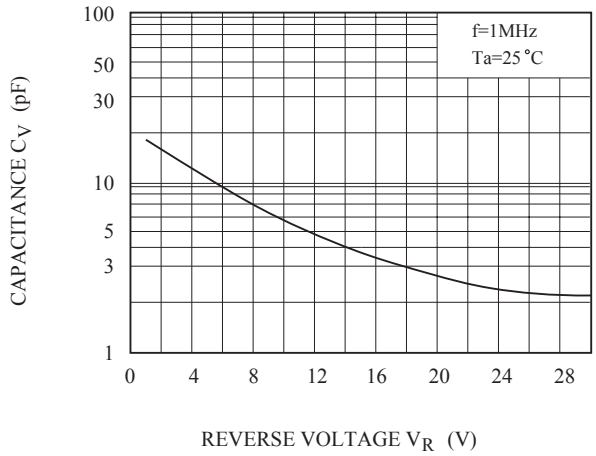
$$\frac{C(Max.)-C(Min.)}{C(Min.)} \leqq 0.025$$

(V_R=2~25V)

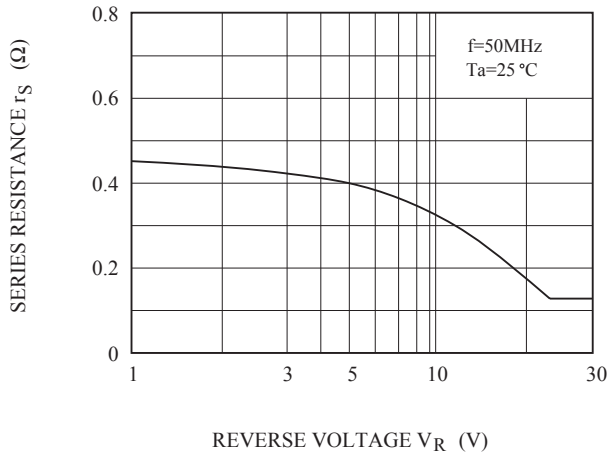
Marking



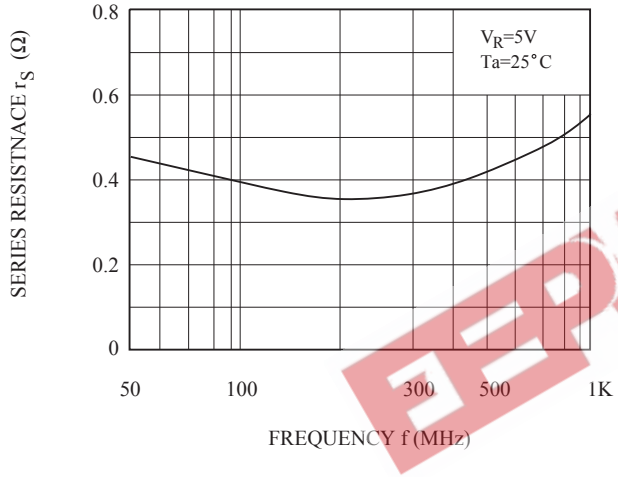
C_V - V_R



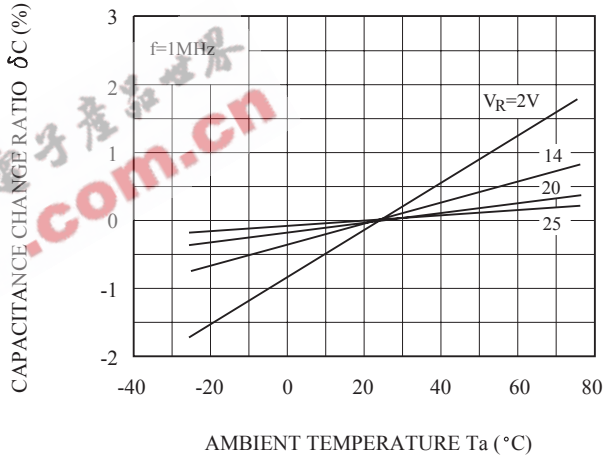
r_s - V_R



r_S - f



δC - Ta



NOTE : $\delta C = \frac{C(Ta)-C(25)}{C(25)} \times 100$