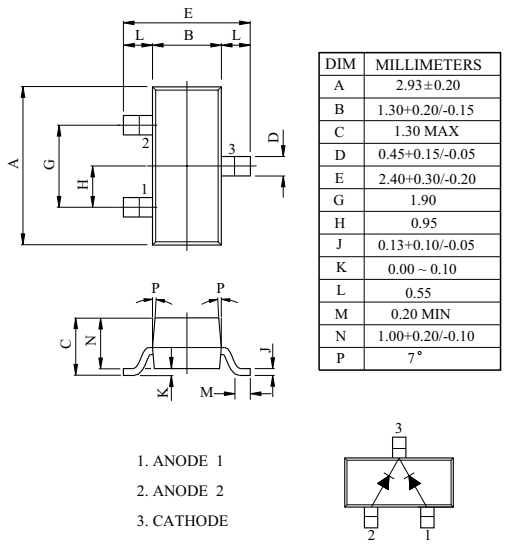
KDV1470

VARIABLE CAPACITANCE DIODE
SILICON EPITAXIAL PLANAR DIODE

FM RADIO BAND TUNING APPLICATION.

FEATURES

- High Capacitance Ratio : C_{1V}/C_{5V}=5.0(Min.)
- Excellent C-V Characteristics.
- Variations of Capacitance Values is Little.
- Small Package.



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7°

SOT-23

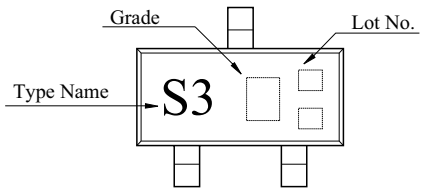
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	16	V
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

CLASSIFICATION OF CAPACITANCE RATIO GRADE

GRADE	CAPACITANCE (C_{1V})	UNIT
A	65.80 ~ 69.25	pF
B	68.27 ~ 71.72	
C	70.74 ~ 74.20	

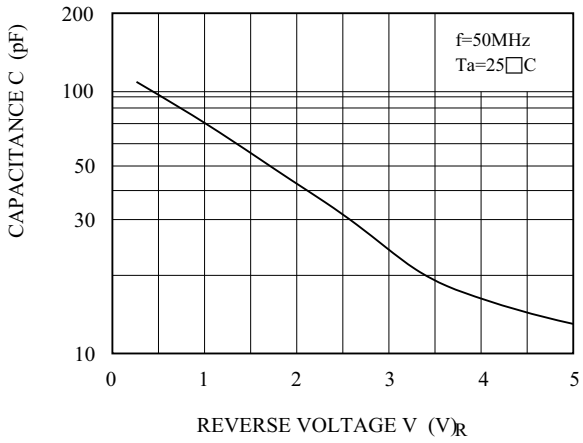
Marking



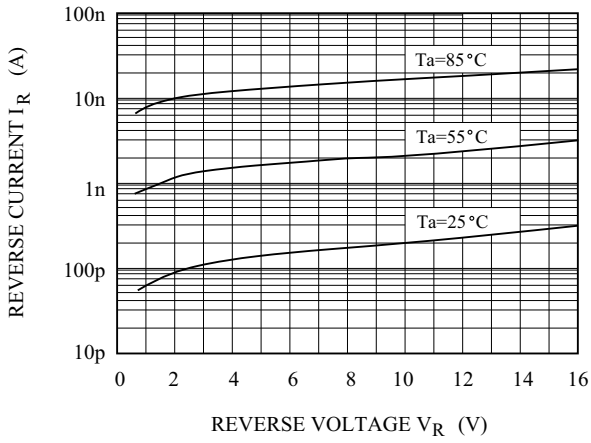
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	I_R=10μA	16	-	-	V
Reverse Current	I_R	V_R=10V	-	-	50	nA
Capacitance	C_{1V}	V_R=1V, f=1MHz	65.8	70	74.2	pF
	C_{2V}	V_R=2V, f=1MHz	-	43	-	
	C_{3V}	V_R=3V, f=1MHz	-	24	-	
	$C_{4.5V}$	V_R=4.5V, f=1MHz	12.0	13.5	14.8	
	C_{5V}	V_R=5V, f=1MHz	-	12.5	-	
Capacitance Ratio	K	C_{1V}/C_{5V}, f=1MHz	5.0	-	-	
Series Resistance	r_S	V_R=1.5V, f=100MHz	-	0.43	0.5	Ω

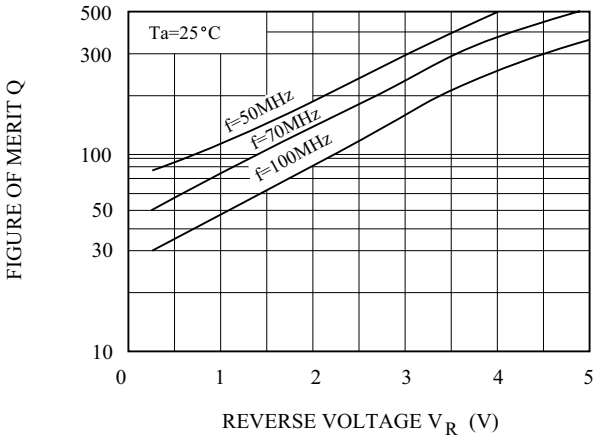
C - V R



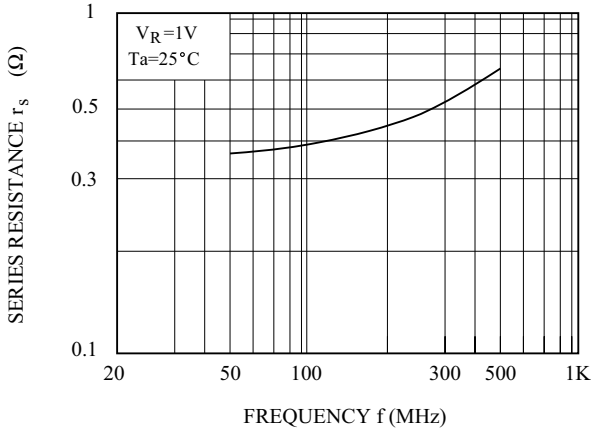
I_R - V_R



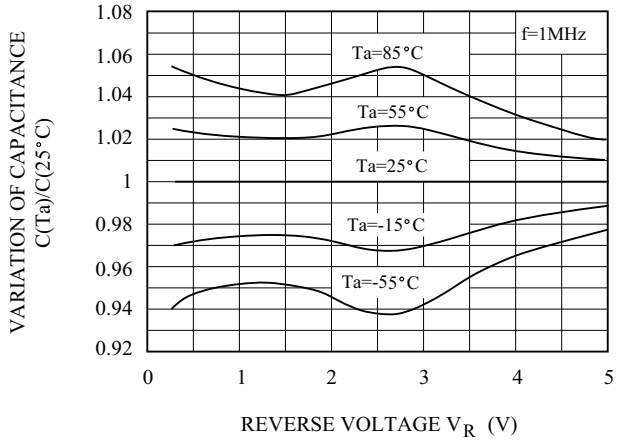
Q - V_R



r_s - f



C(Ta)/C(25°C) - V_R (V)



(ppm/°C) - V_R