

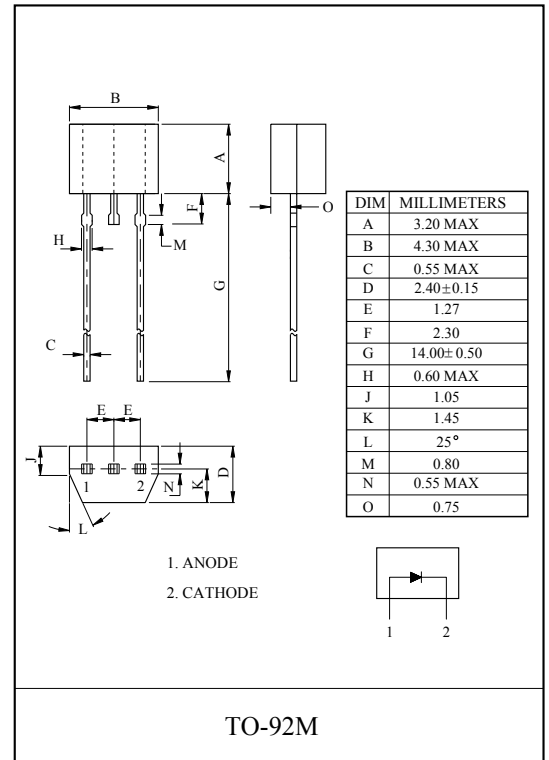
AM RADIO BAND TUNING APPLICATION.

#### FEATURES

- High Capacitance Ratio :  $C_{1V}/C_{8V}=19.5(\text{Typ.})$ .
- High Q :  $Q=200(\text{Min.})$ .
- Small Package.
- Low Voltage Operation. : 1V ~ 8V.

#### MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	15	V
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



#### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R=10\mu A$	15	-	-	V
Reverse Current	$I_R$	$V_R=15V$	-	-	50	nA
Capacitance	$C_{1V}$	$V_R=1V, f=1MHz$	435	-	540	pF
	$C_{8V}$	$V_R=8V, f=1MHz$	21	-	30	
Capacitance Ratio	$C_{1V}/C_{8V}$		16	19.5	22	
Figure of Merit	Q	$V_R=1V, f=1MHz$	200	450	-	

Note)  $\frac{C(\text{Max.})-C(\text{Min.})}{C(\text{Min.})} \leq 0.025(V_R=1V\sim 8V)$

# KDV149

TEST CONDITION (f=1MHz, Ta=25°C)

Grade	No.	C <sub>1V</sub> (pF)	No.	C <sub>1V</sub> /C <sub>3V</sub>	No.	C <sub>1V</sub> /C <sub>5V</sub>	No.	C <sub>1V</sub> /C <sub>8V</sub>
A (162 Grade)	1	435 ~ 450	1	2.30 ~ 2.42	1	5.50 ~ 6.52	1	16.0 ~ 18.5
	2	445 ~ 460	2	2.38 ~ 2.52	2	6.48 ~ 7.52	2	18.0 ~ 20.0
			3	2.48 ~ 2.62	3	7.48 ~ 8.50	3	19.5 ~ 22.0
			4	2.58 ~ 2.72				
			5	2.68 ~ 2.82				
			6	2.78 ~ 2.92				
			7	2.88 ~ 3.02				
			8	2.98 ~ 3.12				
			9	3.08 ~ 3.20				
B (270 Grade)	3	455 ~ 470	0	2.20 ~ 2.32	1	5.50 ~ 6.52	1	16.0 ~ 18.5
	4	465 ~ 480	1	2.28 ~ 2.42	2	6.48 ~ 7.52	2	18.0 ~ 20.0
	5	475 ~ 490	2	2.38 ~ 2.52	3	7.48 ~ 8.50	3	19.5 ~ 22.0
			3	2.48 ~ 2.62				
			4	2.58 ~ 2.72				
			5	2.68 ~ 2.82				
			6	2.78 ~ 2.92				
			7	2.88 ~ 3.02				
			8	2.98 ~ 3.12				
C (162 Grade)	6	485 ~ 500	1	2.20 ~ 2.32	1	5.50 ~ 6.52	1	16.0 ~ 18.5
	7	495 ~ 510	2	2.28 ~ 2.42	2	6.48 ~ 7.52	2	18.0 ~ 20.0
			3	2.38 ~ 2.52	3	7.48 ~ 8.50	3	19.5 ~ 22.0
			4	2.48 ~ 2.62				
			5	2.58 ~ 2.72				
			6	2.68 ~ 2.82				
			7	2.78 ~ 2.92				
			8	2.88 ~ 3.02				
			9	2.98 ~ 3.10				
D (162 Grade)	8	505 ~ 525	1	2.10 ~ 2.22	1	5.50 ~ 6.52	1	16.0 ~ 18.5
	9	520 ~ 540	2	2.18 ~ 2.32	2	6.48 ~ 7.52	2	18.0 ~ 20.0
			3	2.28 ~ 2.42	3	7.48 ~ 8.50	3	19.5 ~ 22.0
			4	2.38 ~ 2.52				
			5	2.48 ~ 2.62				
			6	2.58 ~ 2.72				
			7	2.68 ~ 2.82				
			8	2.78 ~ 2.92				
			9	2.88 ~ 3.00				

(1) This table is not selection guide, which means only to show the data.

(2) The number on the vinyl package (on the label in the vinyl package)

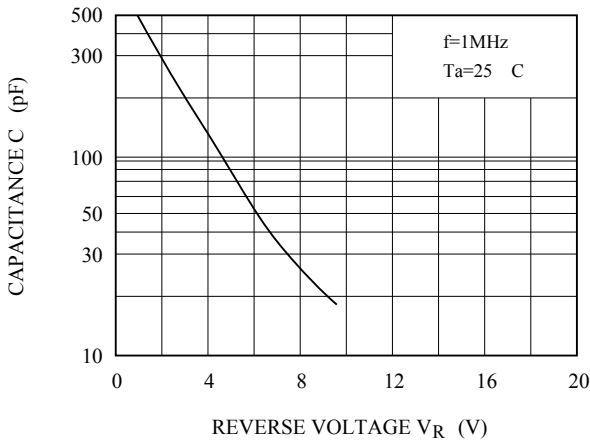
is to show the capacitance data at each voltage in a matched group.

Example : A - 1 - 2 - 3 - 3

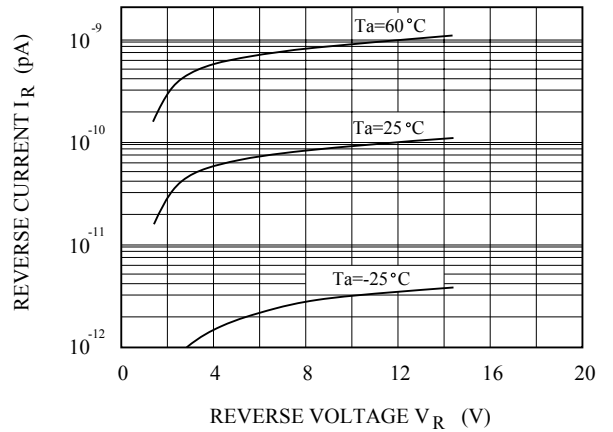
(C<sub>1V</sub>) (C<sub>1V</sub>/C<sub>3V</sub>) (C<sub>1V</sub>/C<sub>5V</sub>) (C<sub>1V</sub>/C<sub>8V</sub>)

# KDV149

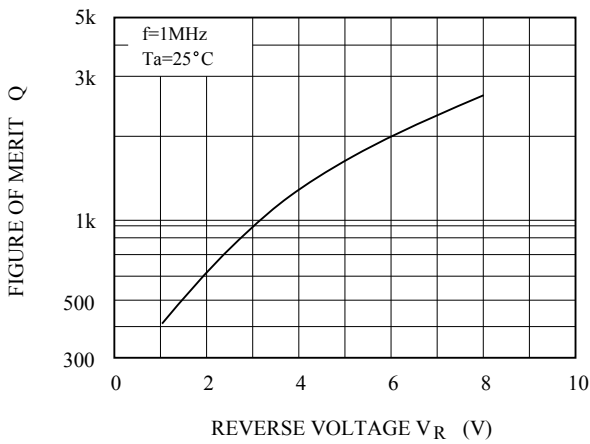
$C - V_R$



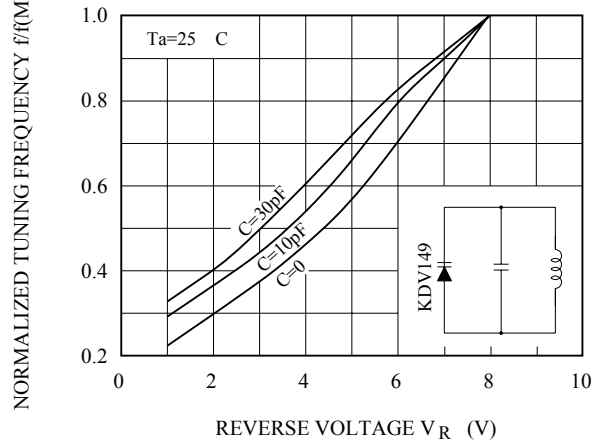
$I_R - V_R$



$Q - V_R$



$f/f_{MAX} - V_R$



$C(T_{emp.})/C(25^\circ\text{C}) - T_a$

