

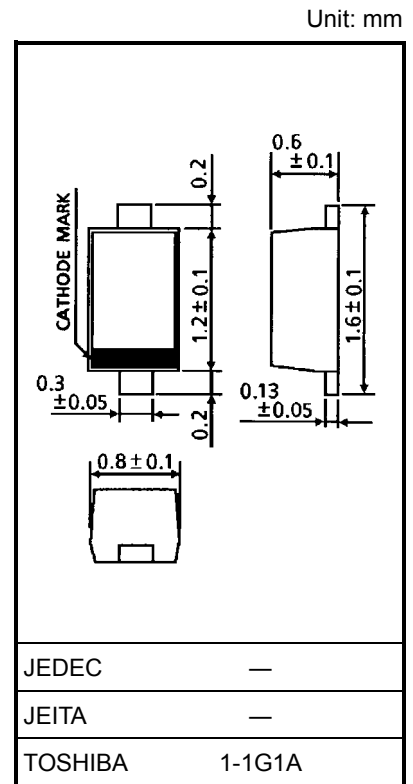
# 1SV283

## CATV Tuning

- High capacitance ratio:  $C_{2\text{ V}}/C_{25\text{ V}} = 11.5$  (typ.)
- Low series resistance:  $r_s = 0.55\ \Omega$  (typ.)
- Excellent C-V characteristics, and small tracking error.
- Useful for small size tuner.

## Maximum Ratings (Ta = 25°C)

| Characteristics           | Symbol    | Rating                           | Unit |
|---------------------------|-----------|----------------------------------|------|
| Reverse voltage           | $V_R$     | 34                               | V    |
| Peak reverse voltage      | $V_{RM}$  | 36 ( $R_L = 10\text{ k}\Omega$ ) | V    |
| Junction temperature      | $T_j$     | 125                              | °C   |
| Storage temperature range | $T_{stg}$ | -55~125                          | °C   |



## Electrical Characteristics (Ta = 25°C)

Weight: 0.0014 g (typ.)

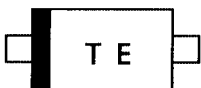
| Characteristics   | Symbol                            | Test Condition                         | Min  | Typ. | Max | Unit     |
|-------------------|-----------------------------------|--|------|------|-----|----------|
| Reverse voltage   | $V_R$                             | $I_R = 1\ \mu\text{A}$                 | 34   | —    | —   | V        |
| Reverse current   | $I_R$                             | $V_R = 32\text{ V}$                    | —    | —    | 10  | nA       |
| Capacitance       | $C_{2\text{ V}}$                  | $V_R = 2\text{ V}, f = 1\text{ MHz}$   | 29   | —    | 34  | pF       |
| Capacitance       | $C_{25\text{ V}}$                 | $V_R = 25\text{ V}, f = 1\text{ MHz}$  | 2.5  | —    | 2.9 | pF       |
| Capacitance ratio | $C_{2\text{ V}}/C_{25\text{ V}}$  | —                                      | 11.0 | 11.5 | —   | —        |
| Capacitance ratio | $C_{25\text{ V}}/C_{28\text{ V}}$ | —                                      | 1.03 | —    | —   | —        |
| Series resistance | $r_s$                             | $V_R = 5\text{ V}, f = 470\text{ MHz}$ | —    | 0.55 | 0.7 | $\Omega$ |

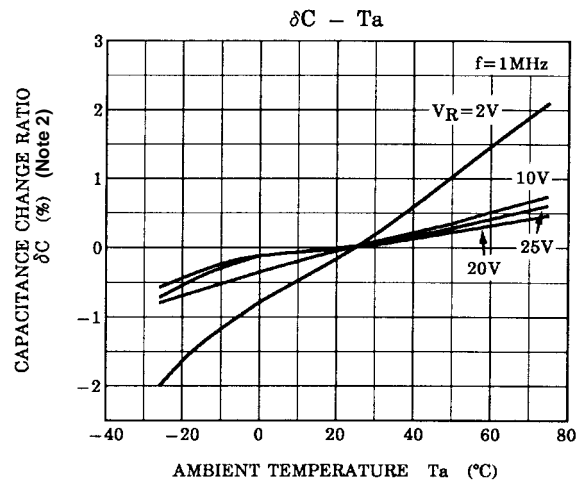
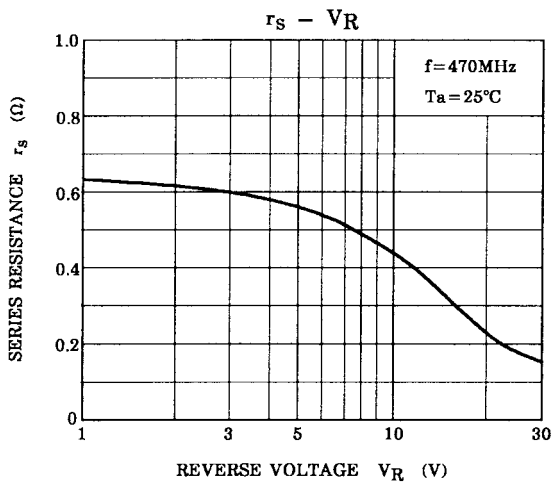
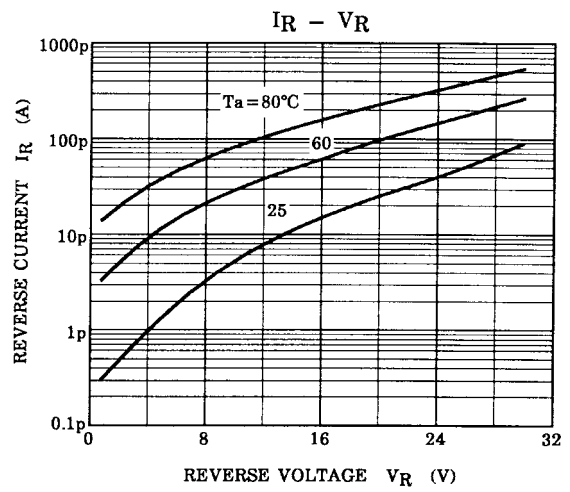
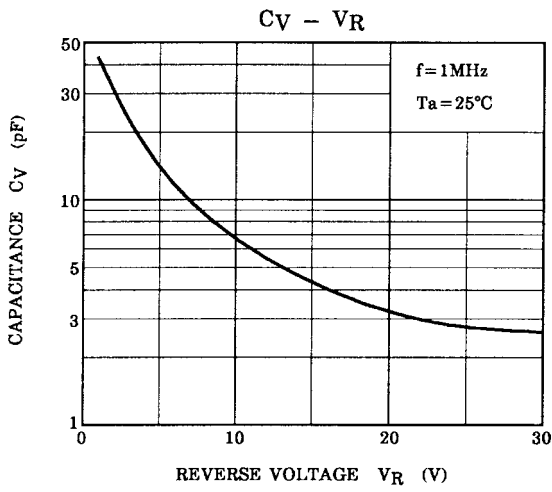
Note 1: Available in matched group for capacitance to 2.0%.

$$\frac{C(\text{max}) - C(\text{min})}{C(\text{min})} \leq 0.02$$

$$(V_R = 2\sim 25\text{ V})$$

## Marking





Note 2: 
$$\delta C = \frac{C(T_a) - C(25)}{C(25)} \times 100 \text{ (%)}$$

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