

# MC2837

FOR HIGH SPEED SWITCHING APPLICATION  
SILICON EPITAXIAL TYPE(SERIES TYPE)

## DESCRIPTION

MC2837 is a super mini package plastic seal type silicon epitaxial type double diode,especially designed for high speed switching application.

Due to the small pin capacitance,short switching time(reverse recovery time),It is most suitable for high speed switching application and limiter,clipper application.

## FEATURE

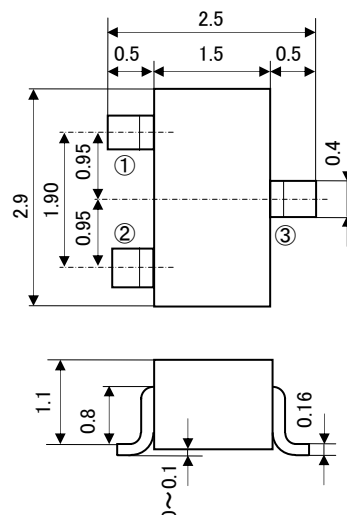
- Small pin capacitance
- Quick switching time
- High voltage
- Series connected two elements
- Good two element characteristics
- Double and super mini package for mounting

## APPLICATION

For general high speed switching of audio machine,VCR.

## OUTLINE DRAWING

Unit: mm



JEITA: SC-59

JEDEC: TO-236 resemble

TERMINAL CONNECTER

①: ANODE1

②: CATHODE2

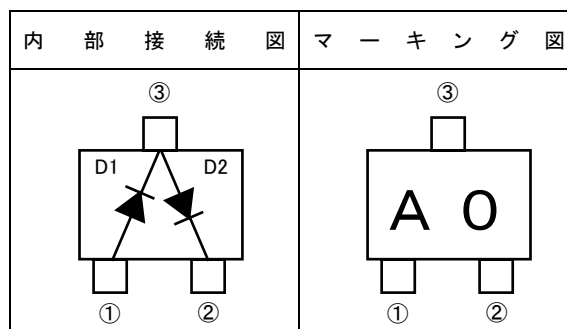
③: CATHODE1+ANODE2

Note)

The dimension without tolerance represent central value.

## MAXIMUM RATINGS(Ta=25°C)

| Symbol    | Parameter                            | Ratings  | Unit |
|-----------|--------------------------------------|----------|------|
| $V_{RM}$  | Peak reverse voltage                 | 85       | V    |
| $V_R$     | DC reverse voltage                   | 80       | V    |
| $I_{FM}$  | Peak forward current                 | 300      | mA   |
| $I_O$     | Average rectification current        | 100      | mA   |
| $I_{FSM}$ | Surge current(10msec)                | 2        | A    |
| $P_T$     | Total allowance dissipation(Ta=25°C) | 150      | mW   |
| $T_j$     | Junction temperature                 | +125     | °C   |
| $T_{stg}$ | Storage temperature                  | -55~+125 | °C   |



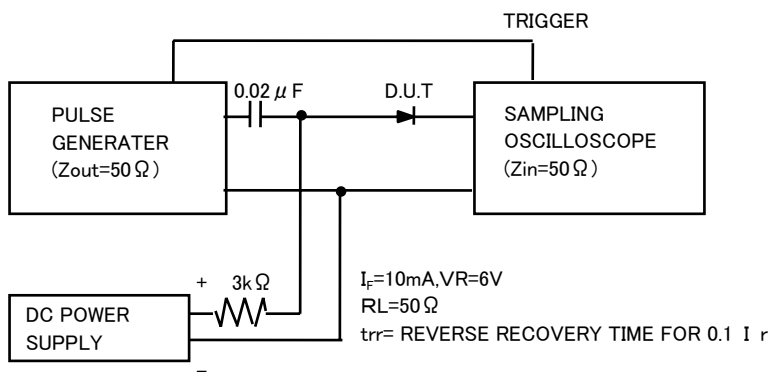
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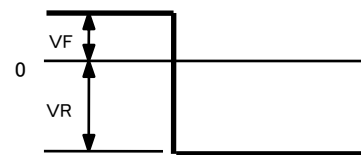
## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

| Parameter             | Symbol          | Test conditions                             | Limits |      |      | Unit |
|-----------------------|-----------------|---------------------------------------------|--------|------|------|------|
|                       |                 |                                             | Min    | Typ  | Max  |      |
| Forward voltage       | V <sub>F1</sub> | I <sub>F</sub> =1mA                         | —      | 0.60 | —    | V    |
|                       | V <sub>F2</sub> | I <sub>F</sub> =10mA                        | —      | 0.72 | —    |      |
|                       | V <sub>F3</sub> | I <sub>F</sub> =100mA                       | —      | 0.90 | 1.20 |      |
| Reverse current       | I <sub>R1</sub> | V <sub>R</sub> =30V                         | —      | —    | 0.1  | μA   |
|                       | I <sub>R2</sub> | V <sub>R</sub> =80V                         | —      | —    | 0.5  |      |
| Pin capacitance       | C <sub>T</sub>  | V <sub>R</sub> =0V, f=1MHz                  | —      | 0.9  | 3.0  | pF   |
| Reverse recovery time | t <sub>rr</sub> | I <sub>F</sub> =10mA(Refer to test circuit) | —      | 1.6  | 4.0  | ns   |

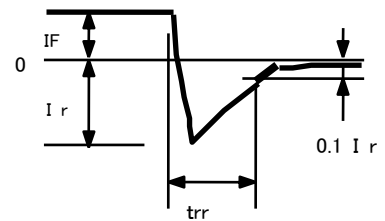
## REVERSE RECOVERY TIME(t<sub>rr</sub>)TEST CIRCUIT



### ●INPUT VOLTAGE WAVE FORM



### ●CURRENT WAVE FORM IN DIODE





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