

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

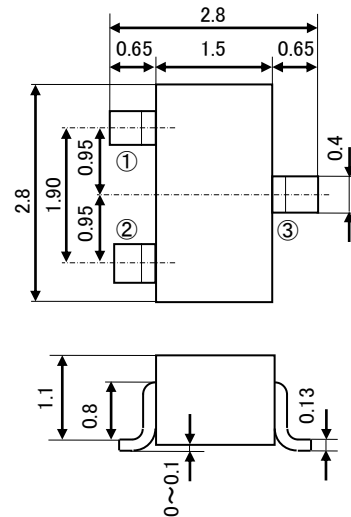
- Small pin capacitance
- Quick switching time
- High voltage
- Series connected two elements
- Good two element characteristics
- Double and super mini package for mounting

APPLICATION

For general high speed switching of audio machine, VTR.

OUTLINE DRAWING

Unit: mm



JEITA: SC-59

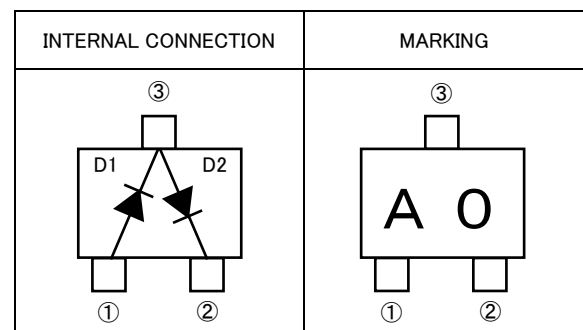
JEDEC: Similar to TO-236

TERMINAL CONNECTION

- ①: ANODE1
- ②: CATHODE2
- ③: CATHODE1+ANODE2

MAXIMUM RATINGS (Ta=25°C)

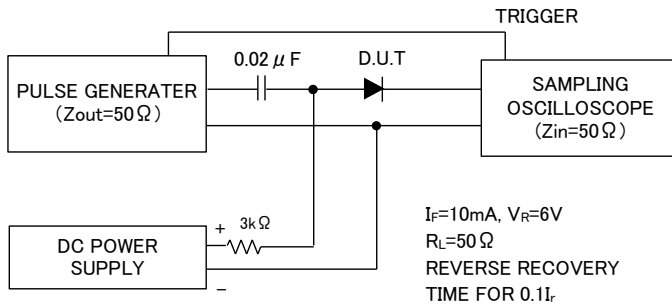
Symbol	Parameter	Ratings	Unit
V_{RM}	Peak reverse voltage	85	V
V_R	DC reverse voltage	80	V
I_{FM}	Peak forward current	300	mA
I_O	Average rectification current	100	mA
I_{FSM}	Surge current(1 μ sec)	2	A
P_T	Total allowance dissipation	200	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 ~ +150	°C



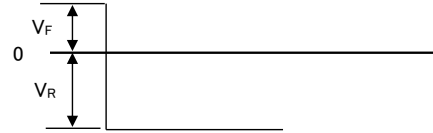
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
Forward voltage	V_{F1}	$I_F=1mA$	-	0.60	-	V
	V_{F2}	$I_F=10mA$	-	0.72	-	
	V_{F3}	$I_F=100mA$	-	0.90	1.20	
Reverse current	I_{R1}	$V_R=30V$	-	-	0.1	μA
	I_{R2}	$V_R=80V$	-	-	0.5	
Pin capacitance	C_T	$V_R=0V, f=1MHz$	-	0.9	3.0	pF
Reverse recovery time	t_{rr}	(Refer to test circuit)	-	1.6	4.0	ns

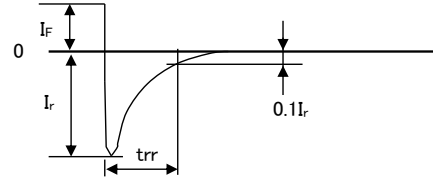
REVERSE RECOVERY TIME(t_{rr})TEST CIRCUIT



● INPUT VOLTAGE WAVE FORM

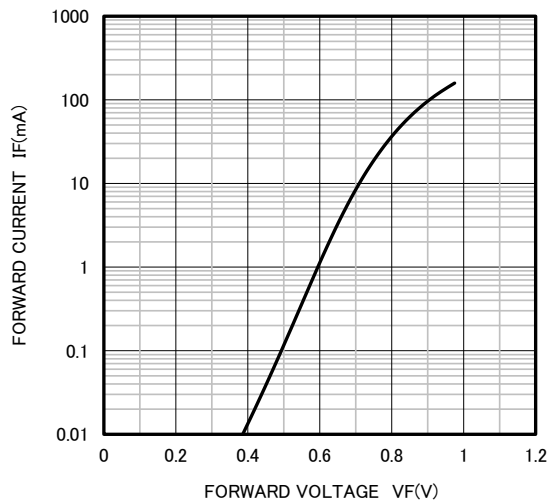


● CURRENT WAVE FORM IN DIODE

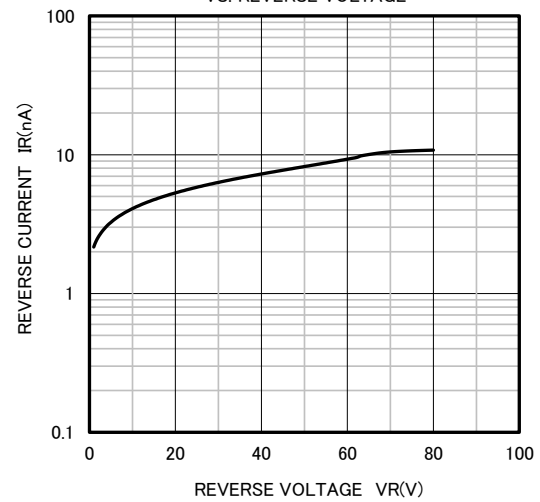


TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

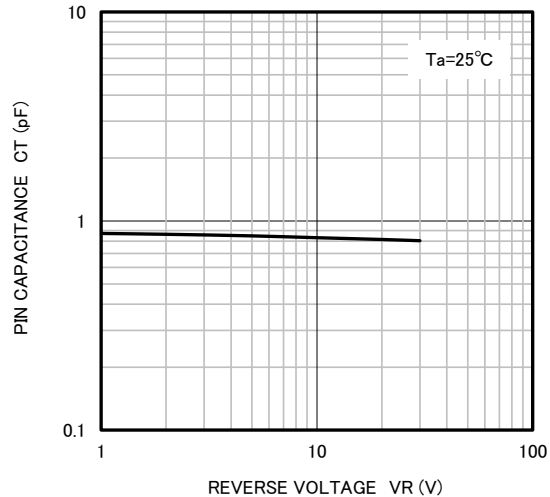
FORWARD CURRENT
VS. FORWARD VOLTAGE



REVERSE CURRENT
VS. REVERSE VOLTAGE



PIN CAPACITANCE
VS. REVERSE VOLTAGE



Keep safety first in your circuit designs!

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