

# 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.

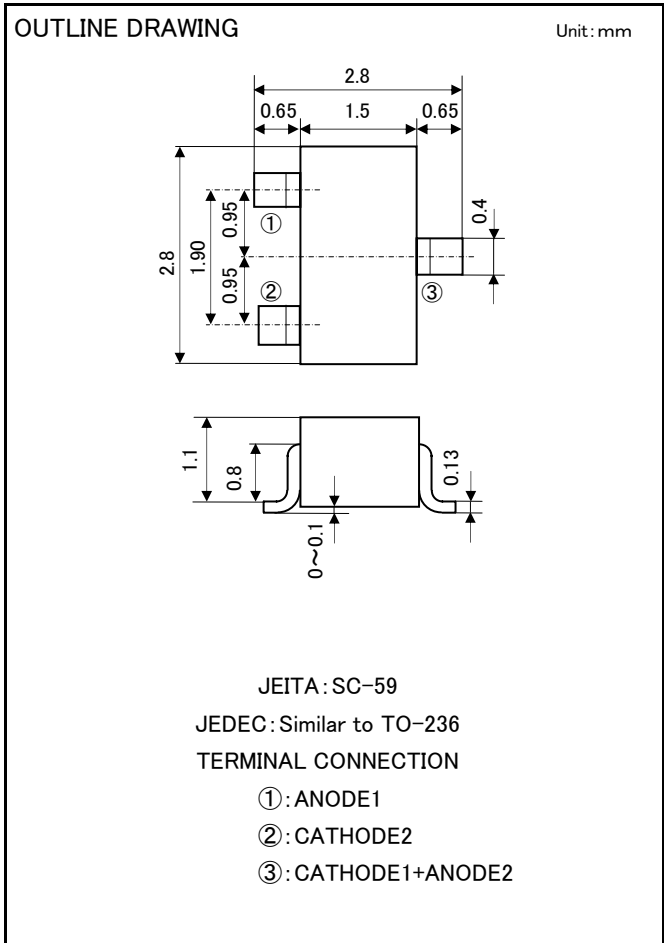
Due to the small pin capacitance, short switching time (reverse recovery time), It is most suitable for high speed switching application and limiter, clipper application.

## FEATURE

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

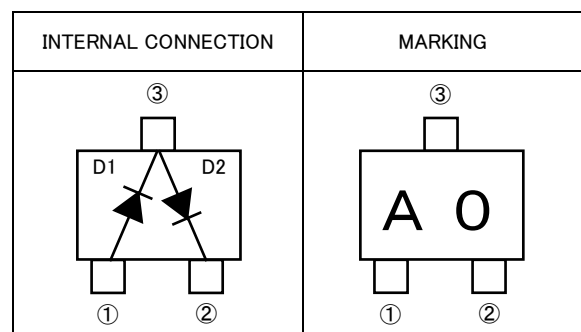
## APPLICATION

For general high speed switching of audio machine, VTR.



## 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 $\mu$ sec)	2	A
$P_T$	Total allowance dissipation	200	mW
$T_j$	Junction temperature	+150	°C
$T_{stg}$	Storage temperature	-55 ~ +150	°C



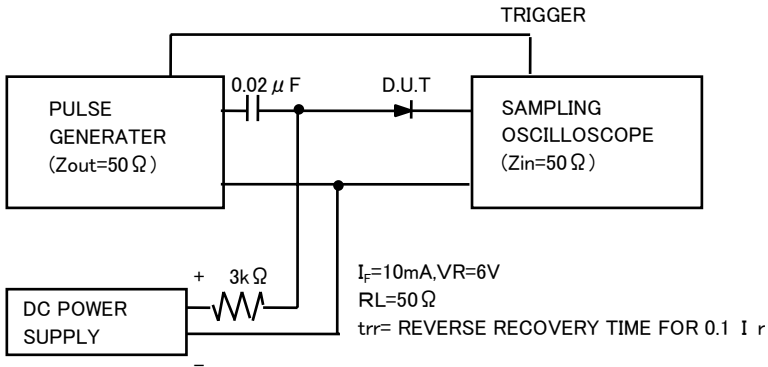
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	$\mu A$
	$I_{R2}$	$V_R=80V$	-	-	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

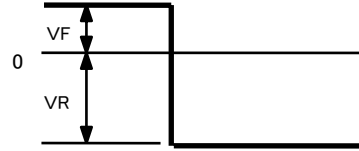
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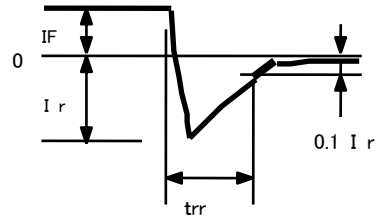
## REVERSE RECOVERY TIME( $t_{rr}$ )TEST CIRCUIT



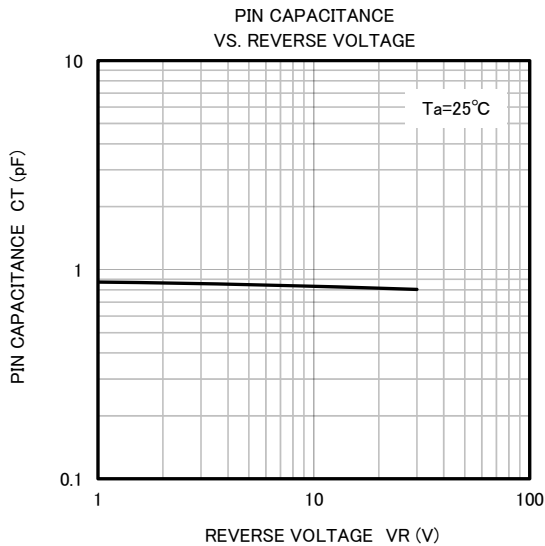
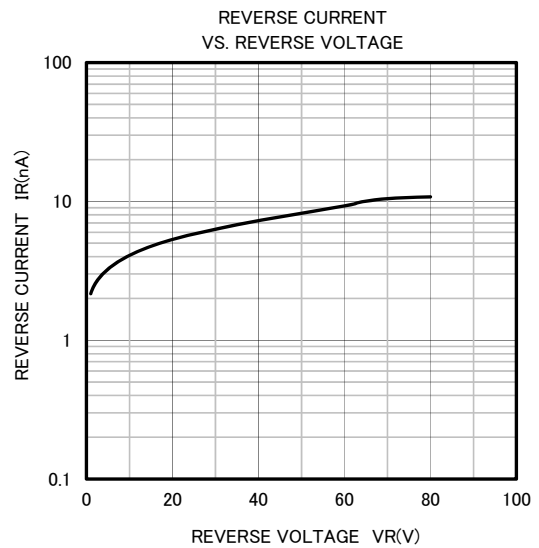
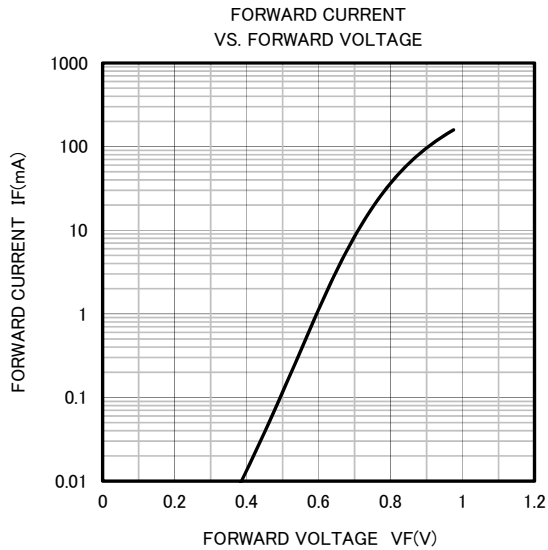
● INPUT VOLTAGE WAVE FORM



● CURRENT WAVE FORM IN DIODE



## TYPICAL CHARACTERISTICS



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**Keep safety first in your circuit designs!**

·ISAHAYA Electronics Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, (2) use of non-flammable material or (3) prevention against any malfunction or mishap.

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