

# MC2831

FOR HIGH SPEED SWITCHING APPLICATION  
SILICON EPITAXIAL TYPE

## DESCRIPTION

MC2831 is a super mini package plastic seal type silicon epitaxial type 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

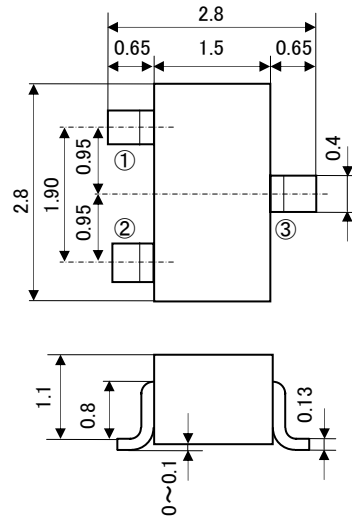
- Small pin capacitance
- Quick switching time
- High voltage
- Super mini package for mounting

## APPLICATION

For general high speed switching of audio machine, VTR.

## OUTLINEDRAWING

Unit : mm



JEITA : SC-59

JEDEC : Similar to TO-236

TERMINAL CONNECTER

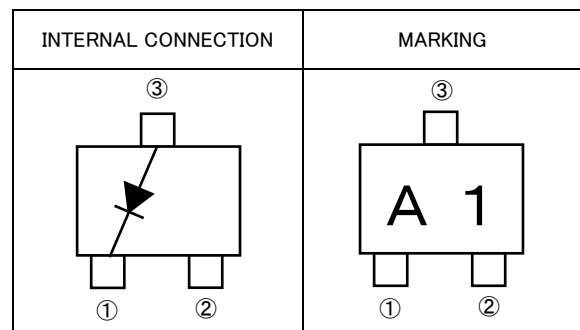
① : CATHODE

② : NC

③ : ANODE

## MAXIMUM RATINGS (Ta=25°C)

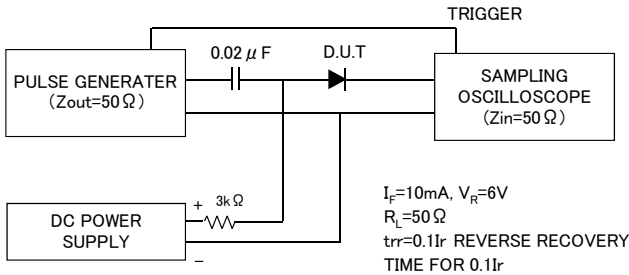
Parameter	Symbol	Ratings	Unit
Peak reverse voltage	$V_{RM}$	75	V
DC reverse voltage	$V_R$	50	V
Surge current (1 $\mu$ sec)	$I_{FSM}$	4	A
Peak forward current	$I_{FM}$	300	mA
Average rectification current	$I_O$	100	mA
Total allowance dissipation	$P_T$	200	mW
Junction temperature	$T_J$	+150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C



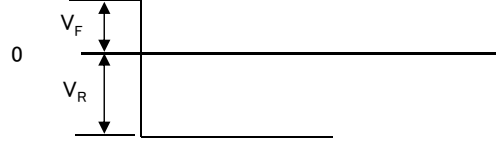
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
Forward voltage	$V_{F1}$	$I_F=10mA$	-	0.77	0.9	V
	$V_{F2}$	$I_F=50mA$	-	0.90	1.0	
	$V_{F3}$	$I_F=100mA$	-	0.95	1.2	
Reverse current	$I_R$	$V_R=50V$	-	-	0.1	$\mu A$
Pin capacitance	$C_t$	$V_R=0V, f=1MHz$	-	2.8	4.0	pF
Reverse recovery time	$t_{rr}$	(Refer to test circuit)	-	-	4.0	ns

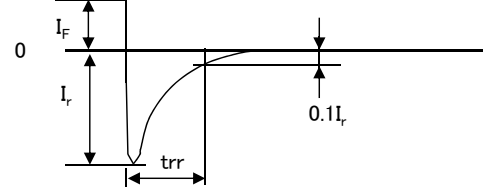
REVERSE RECOVERY TIME( $t_{rr}$ )TEST CIRCUIT



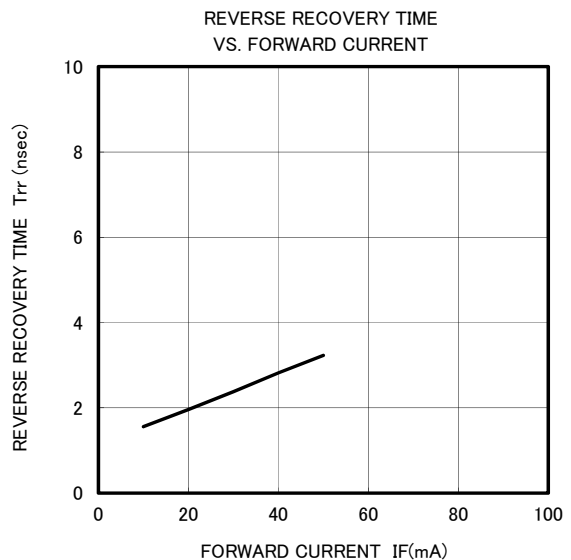
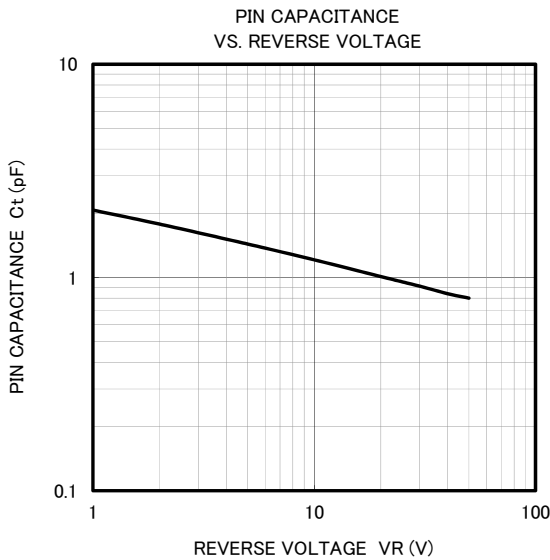
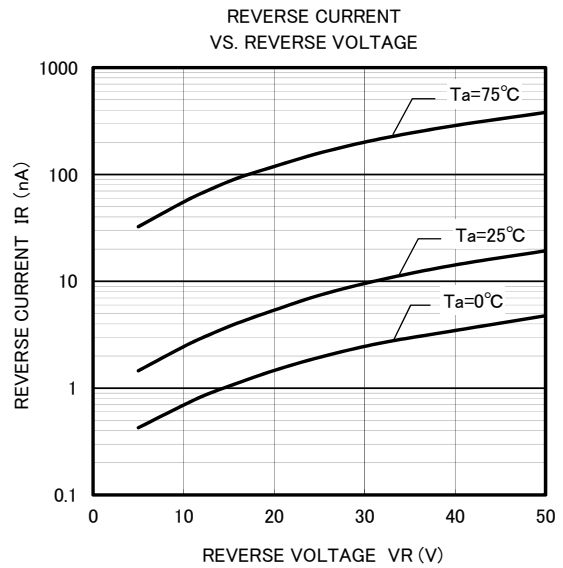
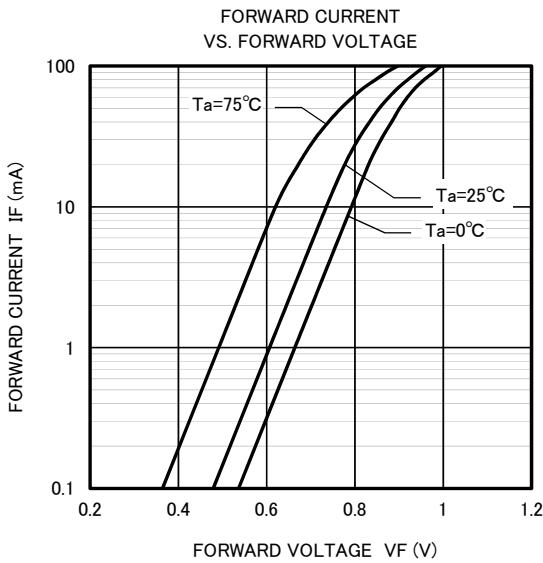
● INPUT VOLTAGE WAVE FORM



● CURRENT WAVE FORM IN DIODE



TYPICAL CHARACTERISTICS





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

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