

# MC2838

FOR HIGH SPEED SWITCHING APPLICATION  
SILICON EPITAXIAL TYPE(COMMON CATHODE)

## DESCRIPTION

MC2838 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

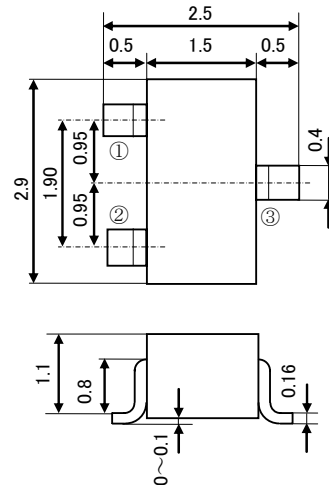
For general high speed switching of audio machine, VCR.

## MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Rating	Unit
$V_{RM}$	Peak reverse voltage	75	V
$V_R$	DC reverse voltage	50	V
$I_{FSM}$	Surge current (1 $\mu$ s)	4	A
$I_{FM}$	Peak forward current	300	mA
$I_O$	Average rectification current	100	mA
$P_T$	Total allowance dissipation (Ta=25°C)	200	mW
$T_j$	Junction temperature	+150	°C
Tstg	Storage temperature	-55~+150	°C

## OUTLINEDRAWING

Unit: mm



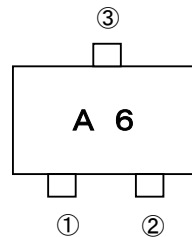
JEITA: SC-59

JEDEC: TO-236 resemblance

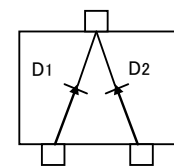
TERMINAL CONNECTER

- ①: ANODE 1
- ②: ANODE 2
- ③: CATHODE (COMMON)

Marking

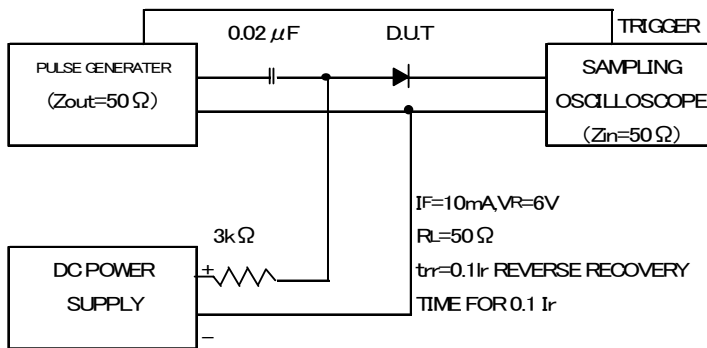


Internal connection

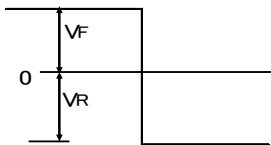


ELECTRICAL CHARACTERISTICS (Ta=25°C)

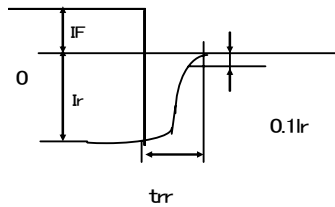
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Min	Min	
Forward voltage	V <sub>F1</sub>	I <sub>F</sub> =10mA	-	0.72	0.9	V
	V <sub>F2</sub>	I <sub>F</sub> =50mA	-	0.85	1.0	
	V <sub>F3</sub>	I <sub>F</sub> =100mA	-	0.90	1.2	
Reverse current	I <sub>R</sub>	V <sub>R</sub> =50V	-	-	0.1	μA
Pin capacitance	C <sub>t</sub>	V <sub>R</sub> =0V, f=1MHz	-	1.3	4.0	pF
Reverse recovery time	t <sub>rr</sub>	(Refer to test circuit)	-	-	3.0	ns



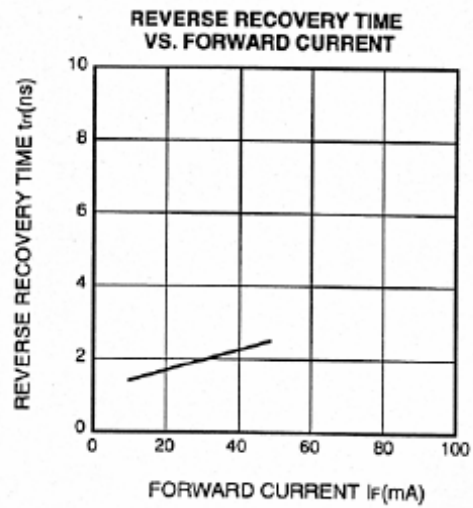
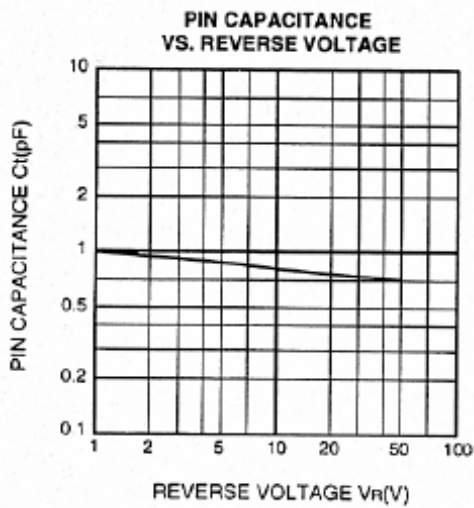
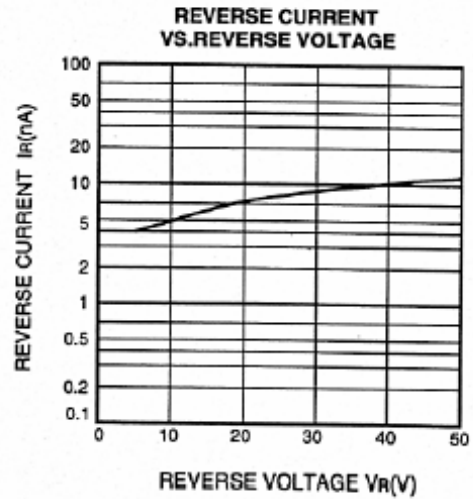
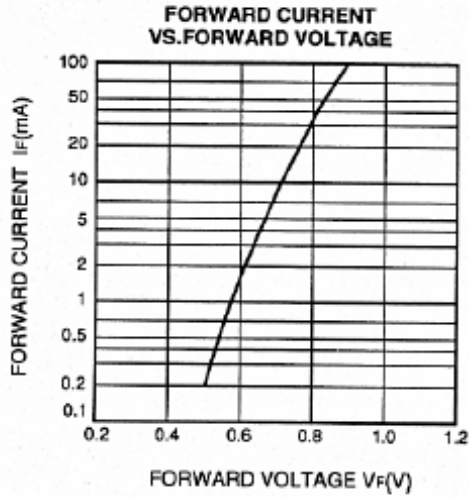
● INPUT VOLTAGE WAVE FORM



● CURRENT WAVE FORM IN DIODE



TYPICAL CHARACTERISTICS





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