

MC971

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

DESCRIPTION

MC971 is a small type resin sealed silicon epitaxial type double diode. It is 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

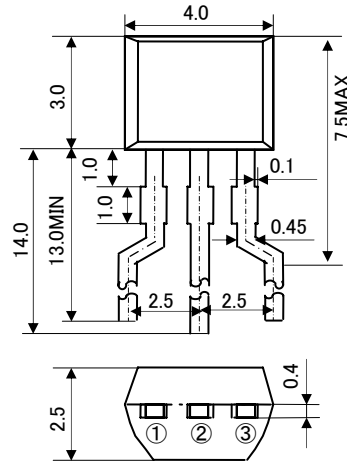
- Small pin capacitance
- Quick switching time
- High voltage
- Good two element characteristics

APPLICATION

For general high speed switching of audio machine, VTR.

OUTLINEDRAWING

Unit:mm



JEITA: —

JEDEC: —

TERMINAL CONNECTER

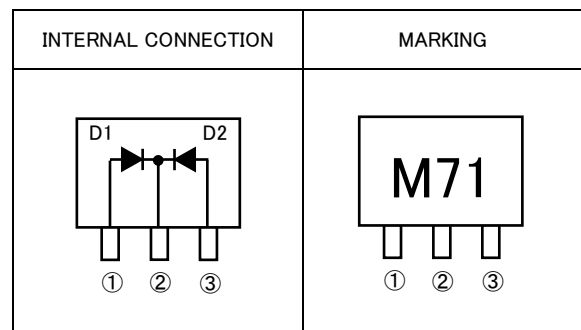
①: ANODE 1

②: CATHODE (COMMON)

③: ANODE 2

MAXIMUM RATINGS (Ta=25°C)

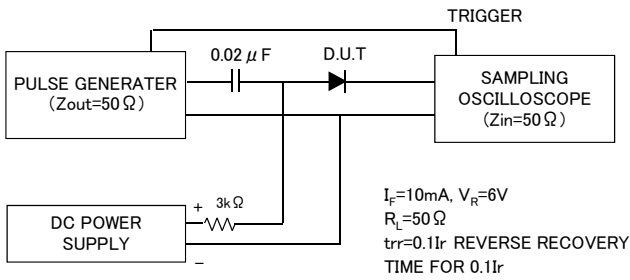
Parameter	Symbol	Ratings	Unit
Peak reverse voltage	V_{RM}	75	V
DC reverse voltage	V_R	50	V
Surge current (1 μ s)	I_{FSM}	4	A
Peak forward current	I_{FM}	300	mA
Average rectification current	I_O	100	mA
Total allowance dissipation	P_T	450	mW
Junction temperature	T_j	+150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C



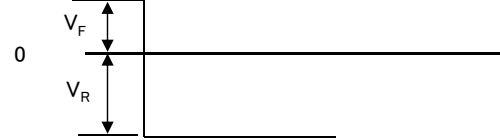
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
Forward voltage	V_{F1}	$I_F=10mA$	-	0.72	0.9	V
	V_{F2}	$I_F=50mA$	-	0.85	1.0	
	V_{F3}	$I_F=100mA$	-	0.90	1.2	
Reverse current	I_R	$V_R=50V$	-	-	0.1	μ A
Pin capacitance	C_t	$V_R=0V, f=1MHz$	-	1.0	4.0	pF
Reverse recovery time	trr	(Refer to test circuit)	-	-	3.0	ns

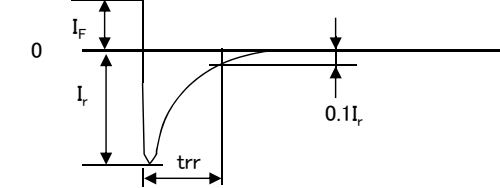
REVERSE RECOVERY TIME(t_{rr})TEST CIRCUIT



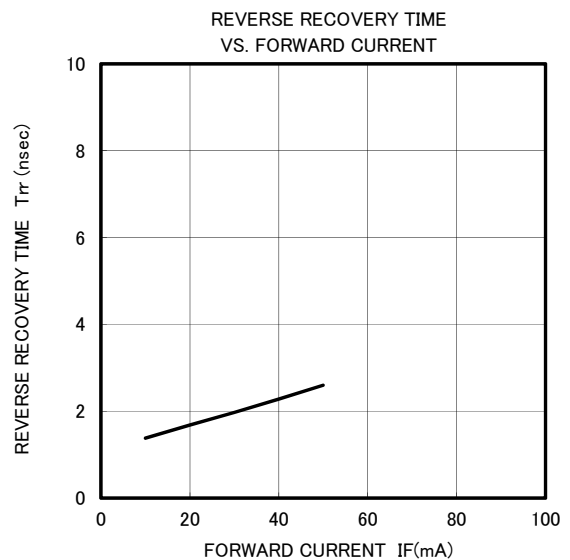
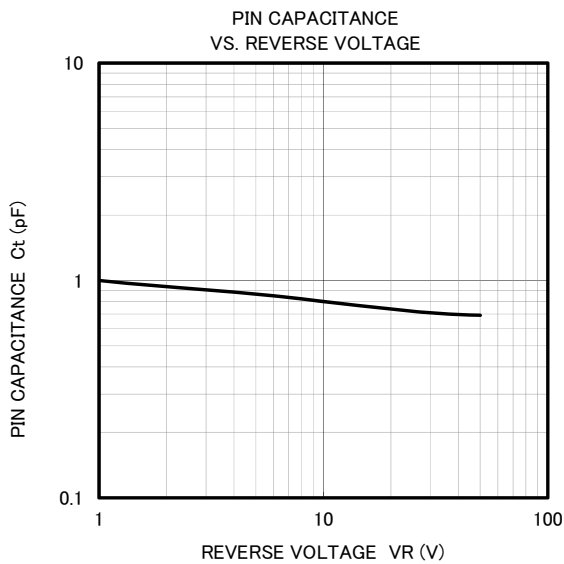
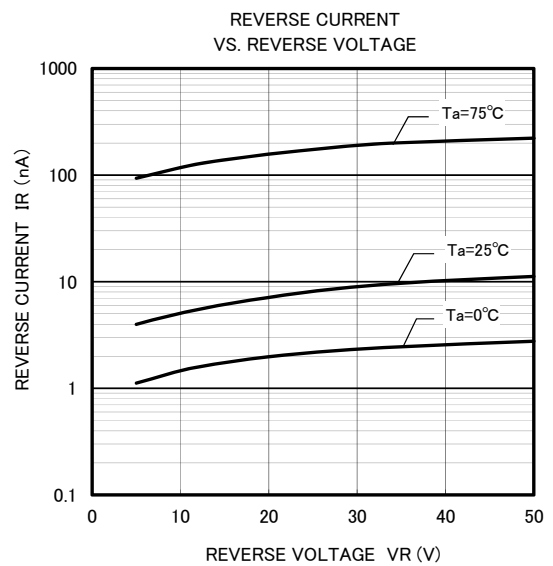
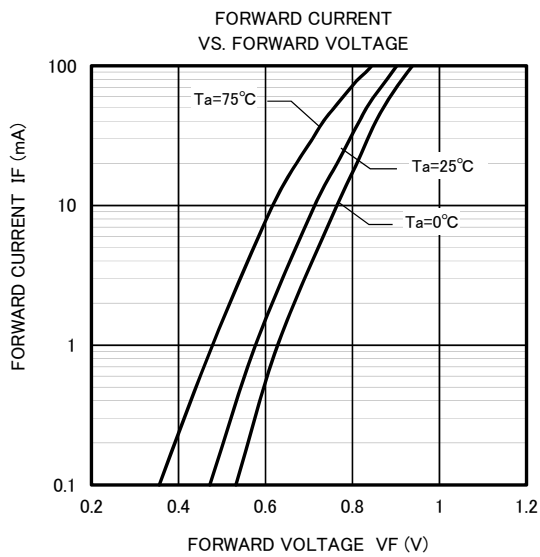
● INPUT VOLTAGE WAVE FORM



● CURRENT WAVE FORM IN DIODE



TYPICAL CHARACTERISTICS





Keep safety first in your circuit designs!

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