(Diode)

MC971

For High Speed Swiching Application
Silicon Epitaxial Type (Common Cathode)

DESCRIPTION

MC971 is a small type resin sealed silicon epitaxial type double diode.It is especialy designed for high speed swiching application.

Due to the small pin capacitance,short swiching time(reverse recovery time),it is most suitable for high speed swiching application and limitter, clipper application.

FEATURE

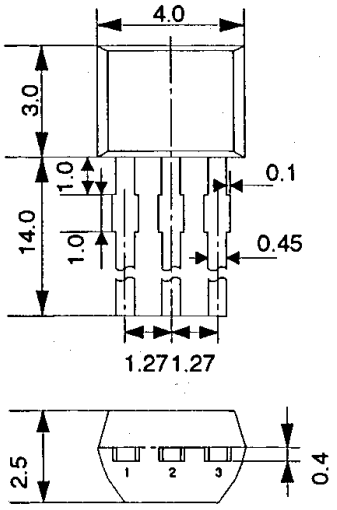
- Small pin capacitance
- Quick swiching time
- Good two elements characteristics
- Small outline package for mounting

APPLICATION

General high speed swiching of audio machine,VCR.

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

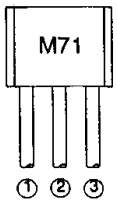
① : ANODE 1
② : CATHODE(COMMON)
③ : ANODE 2

EIAJ : —
JEDEC : —

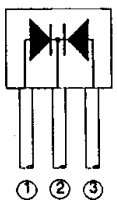
MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	RATINGS	UNIT
V_{RM}	Peak reverse voltage	75	V
V_R	DC reverse voltage	50	V
I_{FSM}	Surge current(1 μS)	4	A
I_{FM}	Peak forward current	300	mA
I_O	Average rectification current	100	mA
P_T	Total allowable dissipation	450	mW
T_j	Junction temperature	+125	°C
T_{stg}	Storage temperature	-55to+125	°C

Marking



Internal Connection



ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TESTCONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
V_{F1}	Forward voltage	I_F=10mA		0.72	0.9	V
V_{F2}	Forward voltage	I_F=50mA		0.85	1.0	V
V_{F3}	Forward voltage	I_F=100mA		0.90	1.2	V
I_R	Reverse current	V_R=50V			0.1	μA
C_t	Pin capacitance	V_R=0,f=1MHz		1.0	4.0	pF
t_{rr}	Reverse recovery time	(Refer to test circuit)			3.0	ns

〈Diode〉

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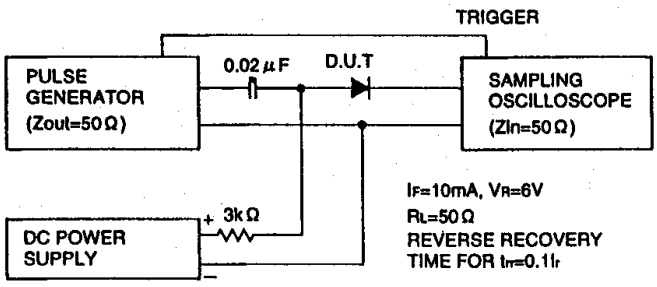
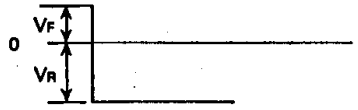
For High Speed Swiching Application

Silicon Epitaxial Type (Common Cathode)

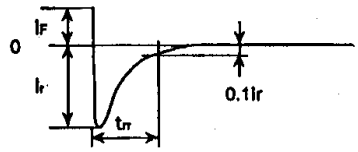
REVERSE RECOVERY TIME(t_{rr})TEST CIRCUIT



●INPUT VOLTAGE WAVE FORM

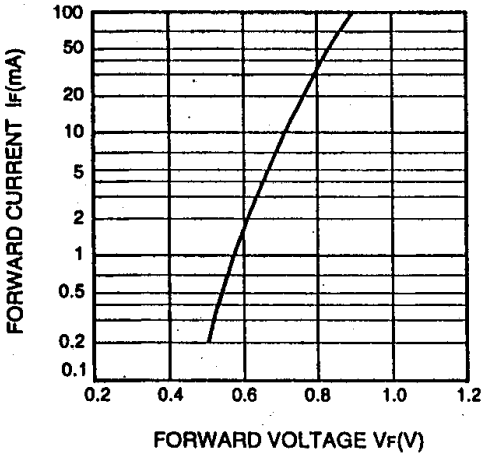


●CURRENT WAVE FORM IN DIODE

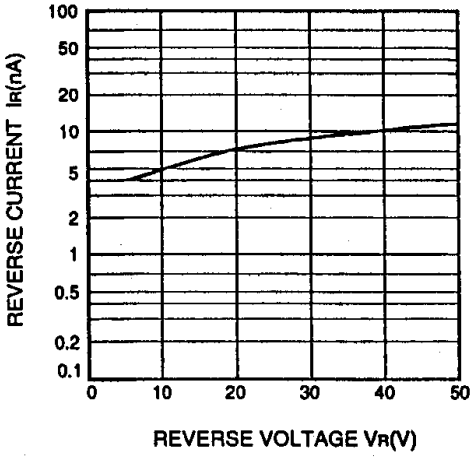


TYPICAL CHARACTERISTICS

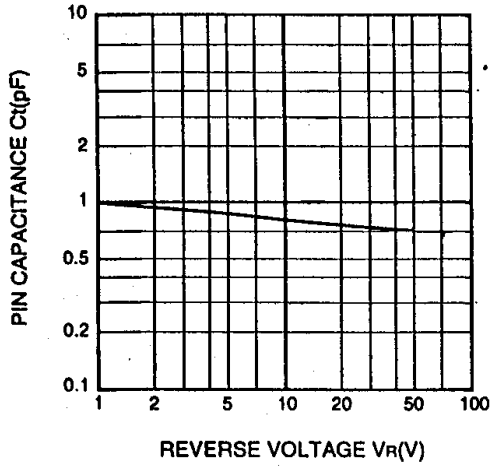
FORWARD CURRENT VS.FORWARD VOLTAGE



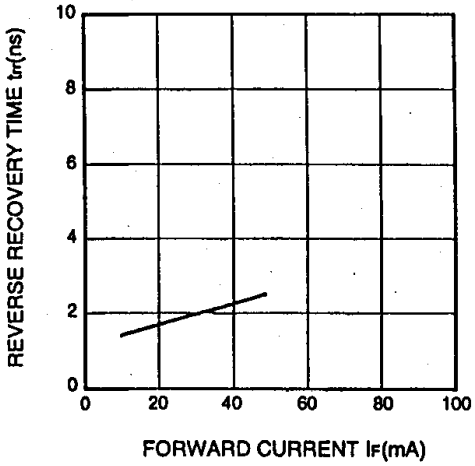
REVERSE CURRENT VS.REVERSE VOLTAGE



PIN CAPACITANCE VS. REVERSE VOLTAGE



REVERSE RECOVERY TIME VS. FORWARD CURRENT



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