

MC921

HIGH-SPEED SWITCHING/SILICON EPITAXIAL TYPE (COMMON CATHODE)

DESCRIPTION

The MC921 is a silicon epitaxial double diode employing small epoxy molded package.

It is designed for high-speed switching applications.

Owing to the small terminal capacitance and the short switching time (reverse recovery time), this diode usable not only for high-speed switching applications but also for protection, bias and other circuits.

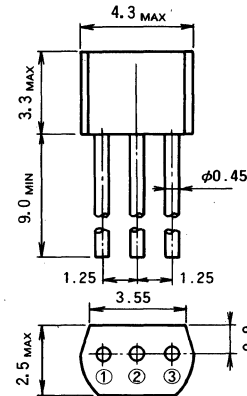
Moreover, this is small in size and double, it is suitable for high-density mounting applications.

FEATURES

- Small terminal capacitance
- High speed switching
- High voltage
- Double device and compact format reduce dimensions and enhance high-density mounting.

OUTLINE DRAWING

UNIT : mm



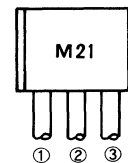
TERMINAL CONNECTIONS

- ① : ANODE 1
② : CATHODE(COMMON) EIAJ : —
③ : ANODE 2 JEDEC : —

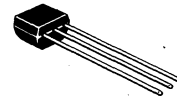
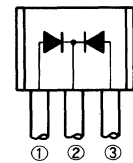
ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Symbol	Parameter	Limits	Unit
V _{RM}	Peak reverse voltage	75	V
V _R	Reverse voltage	50	V
I _{FSM}	Forward surge current	4	A
I _{FM}	Peak forward current	300	mA
I _O	Average rectified current	100	mA
P _T	Power dissipation	300	mW
T _j	Junction temperature	+125	°C
T _{stg}	Storage temperature	-55~+125	°C

MARK



INTERNAL CONNECTIONS



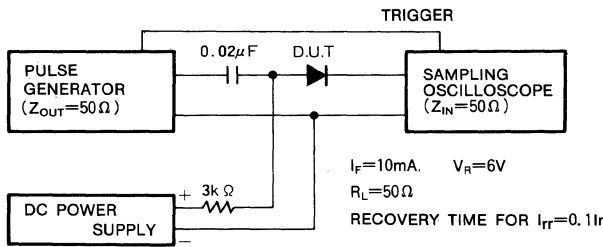
3-pin molded plastic SIL

ELECTRICAL CHARACTERISTICS (T_a=25°C)

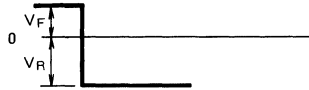
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{F1}	Forward voltage	I _F =10mA		0.72	0.9	V
V _{F2}	Forward voltage	I _F =50mA		0.85	1.0	V
V _{F3}	Forward voltage	I _F =100mA		0.9	1.2	V
I _R	Reverse current	V _R =50V			0.1	μA
C _t	Terminal capacitance	V _R =0, f=1MHz		1.0	4.0	pF
t _{rr}	Reverse recovery time	(See measurement circuit)			3.0	ns

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(COMMON CATHODE)

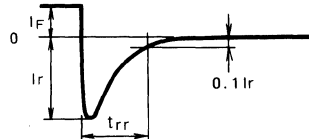
REVERSE RECOVERY TIME(T_{rr}) MEASUREMENT CIRCUIT



● INPUT VOLTAGE WAVEFORM

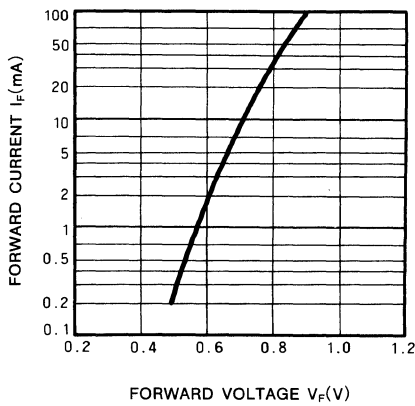


● WAVEFORM OF CURRENT FLOWING TO DIODE

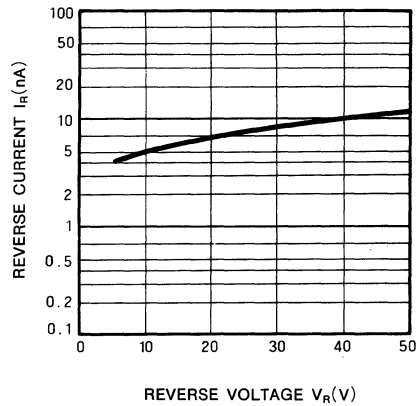


TYPICAL CHARACTERISTICS

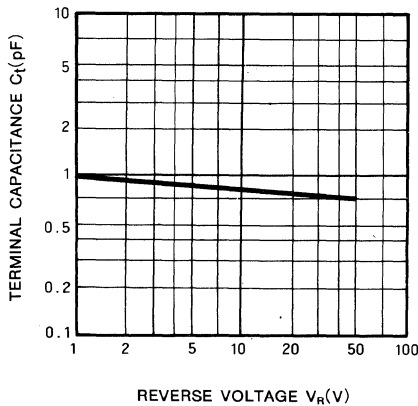
FORWARD CURRENT VS
FORWARD VOLTAGE



REVERSE CURRENT VS
REVERSE VOLTAGE



TERMINAL CAPACITANCE
VS REVERSE VOLTAGE



REVERSE RECOVERY TIME VS
FORWARD CURRENT

