〈SMALL-SIGNAL DIODE〉

MC2841

FOR HIGH SPEED SWITCHING APPLICATION
SILICON EPITAXIAL TYPE

DESCRIPTION

MC2841 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

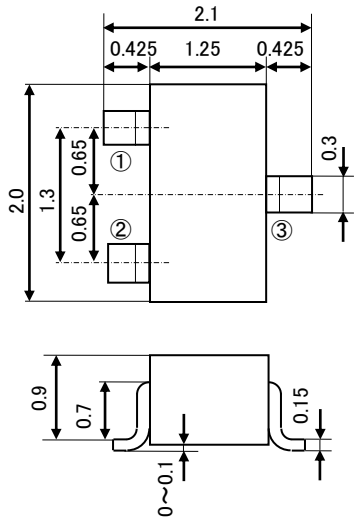
- Small pin capacitance
- Quick switching time
- High voltage
- Super mini package for mounting

APPLICATION

For general high speed switching of audio machine, VTR.

OUTLINEDRAWING

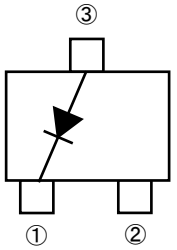
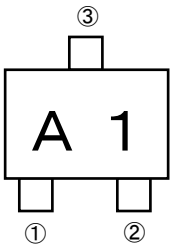
Unit:mm



JEITA:SC-70
JEDEC:-
TERMINAL CONNECTION
①:CATHODE
②:NC
③:ANODE

MAXIMUM RATINGS(Ta=25℃)

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

INTERNAL CONNECTION	MARKING
	

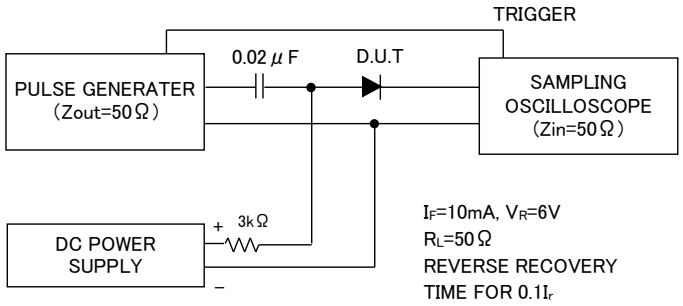
ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Uniit
			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	μA
Pin capacitance	C_t	V_R=0V, f=1MHz	−	2.8	4.0	pF
Reverse recovery time	trr	(Refer to test circuit)	−	−	4.0	ns

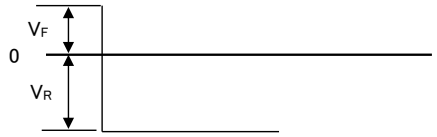
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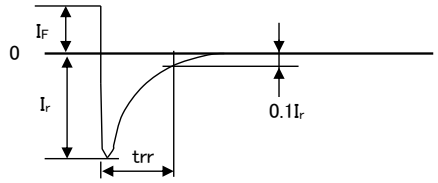
REVERSE RECOVERY TIME(trr)TEST CIRCUIT



●INPUT VOLTAGE WAVE FORM

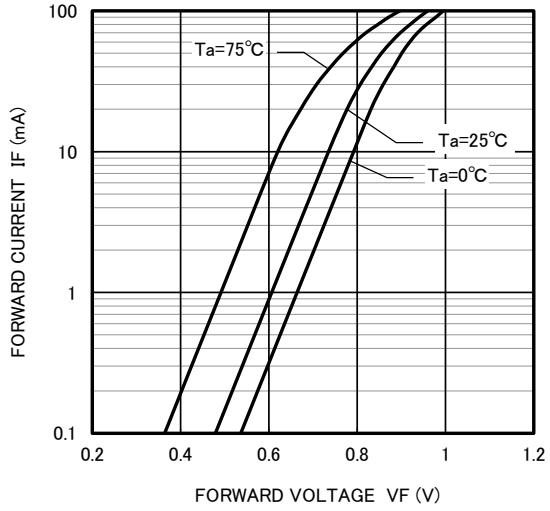


●CURRENT WAVE FORM IN DIODE

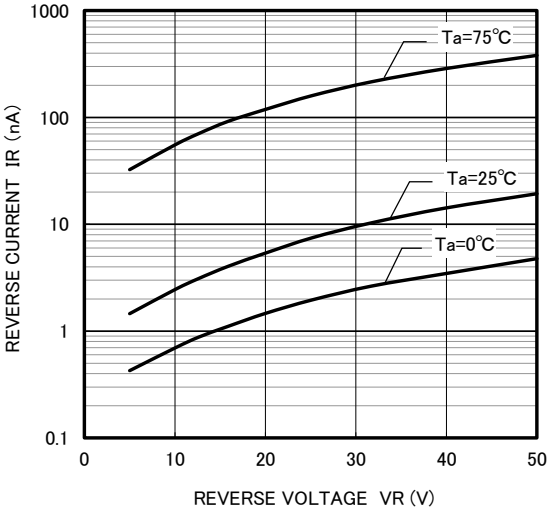


TYPICAL CHARACTERISTICS

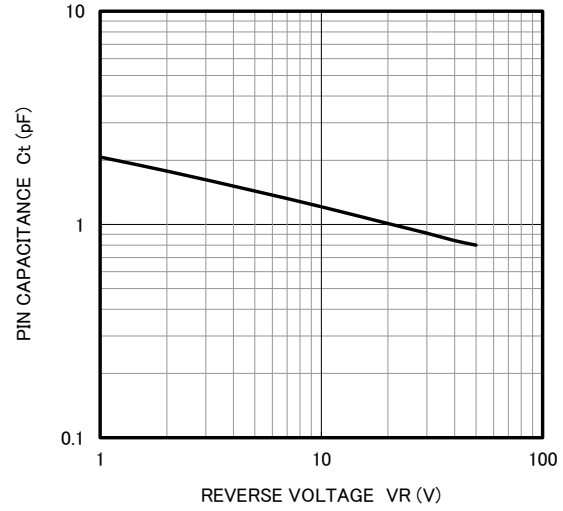
FORWARD CURRENT
VS. FORWARD VOLTAGE



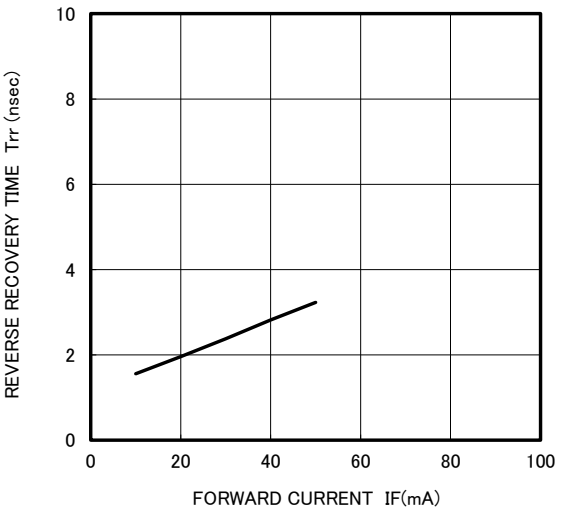
REVERSE CURRENT
VS. REVERSE VOLTAGE



PIN CAPACITANCE
VS. REVERSE VOLTAGE



REVERSE RECOVERY TIME
VS. FORWARD CURRENT



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