〈SMALL-SIGNAL DIODE〉

RT3DKAM

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

DESCRIPTION

RT3DKAM is a super mini package plastic seal type silicon epitaxial type composite diode, built with Anode common MC2836 and Cathode common MC2838.

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

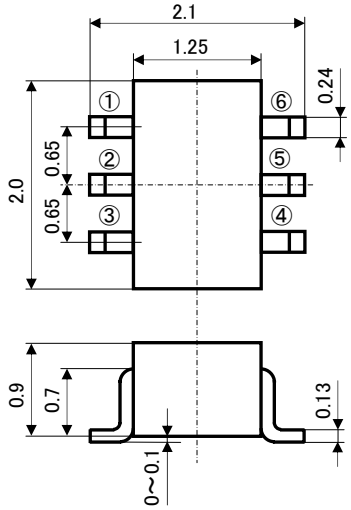
- Small pin capacitance
- Quick switching time
- High voltage
- Quadruple diodes and super mini package for mounting

APPLICATION

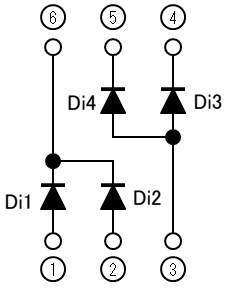
For general high speed switching of audio machine, VCR.

OUTLINEDRAWING

Unit:mm



Equivalent circuit



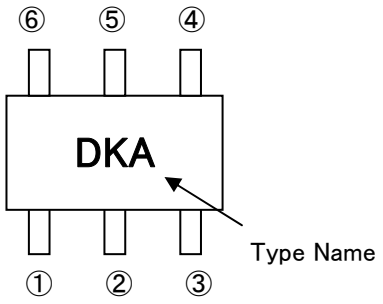
TERMINAL CONNECTER
①:ANODE 1
②:ANODE 2
③:ANODE 3+ CATHODE 4
(Di3・Di4 COMMON)
④:CATHODE 3
⑤:CATHODE 4
⑥:CATHODE 1+ CATHODE 2
(Di1・Di2 COMMON)

JEITA:SC-88
JEDEC:—

MAXIMUM RATINGS (Ta=25℃) (Di1・Di2,Di3・Di4 COMMON)

Parameter	Symbol	Ratings	Unit
Peak reverse voltage	V_{RM}	85	V
DC reverse voltage	V_R	80	V
Surge current(1μs)	I_{FSM}	4	A
Peak forward current	I_{FM}	300	mA
Average rectification current	I_O	100	mA
Total dissipation	P_T	200	mW
Junction temperature	T_j	+150	℃
Storage temperature	Tstg	−55～+150	℃

MARKING



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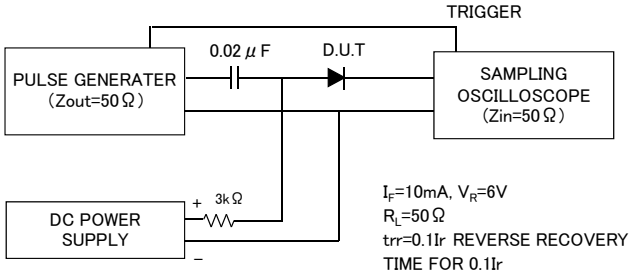
ELECTRICAL CHARACTERISTICS (Ta=25℃) (Di1・Di2)

Parameter	Symbol	Test conditions	Limits			Uniit
			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_{R1}	V_R=75V	−	−	0.1	μA
	I_{R2}	V_R=80V	−	−	0.5	
Pin capacitance	C_t	V_R=0V, f=1MHz	−	1.3	4.0	pF
Reverse recovery time	trr	(Refer to test circuit)	−	—	3.0	ns

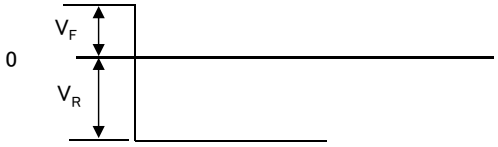
ELECTRICAL CHARACTERISTICS (Ta=25℃) (Di3・Di4)

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_{R1}	V_R=75V	−	−	0.1	μA
	I_{R2}	V_R=80V	−	−	0.5	
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

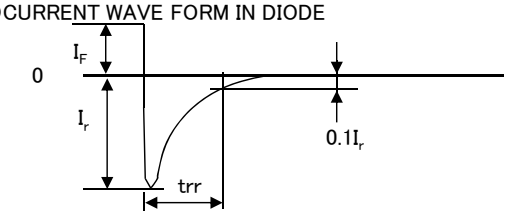
REVERSE RECOVERY TIME(trr)TEST CIRCUIT



●INPUT VOLTAGE WAVE FORM



●CURRENT WAVE FORM IN DIODE



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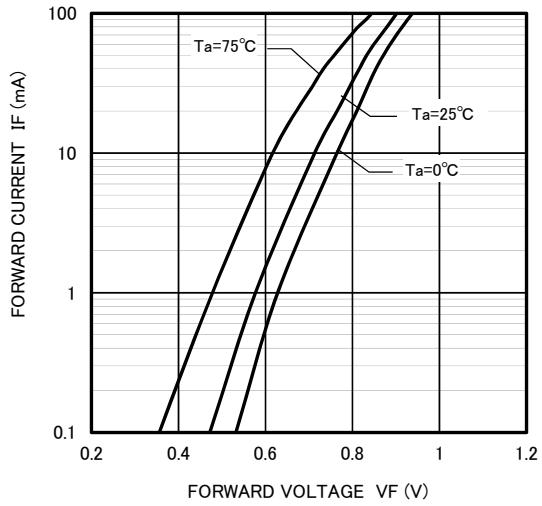
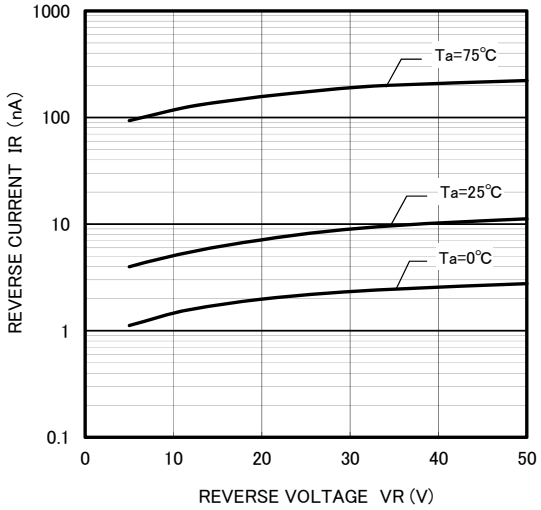
TYPICAL CHARACTERISTICS(Di1・Di2)

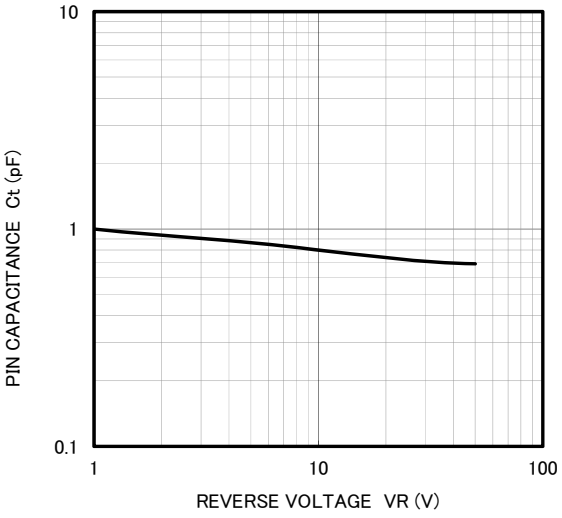
FORWARD CURRENT
VS. FORWARD VOLTAGE



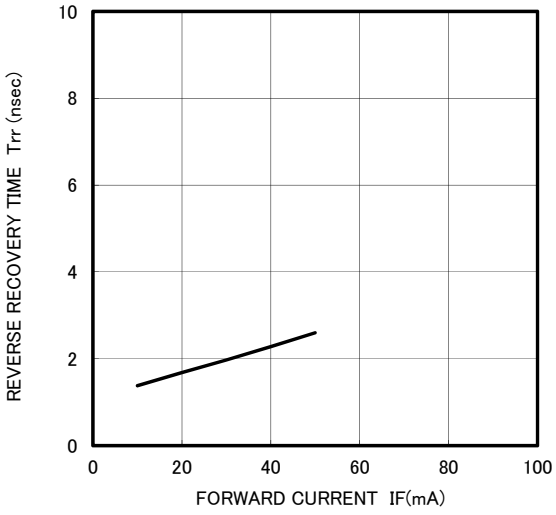
REVERSE CURRENT
VS. REVERSE VOLTAGE



PIN CAPACITANCE
VS. REVERSE VOLTAGE

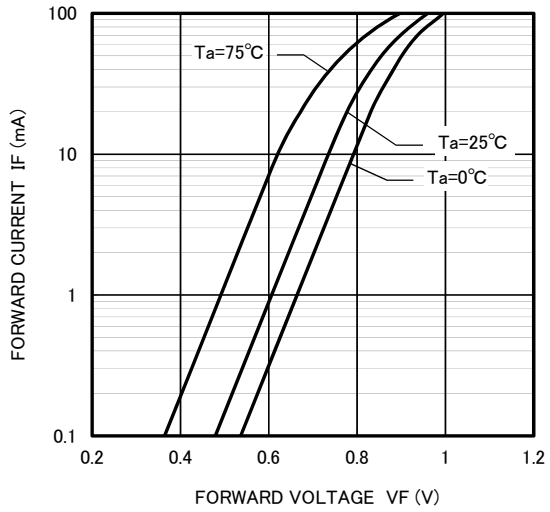


REVERSE RECOVERY TIME
VS. FORWARD CURRENT

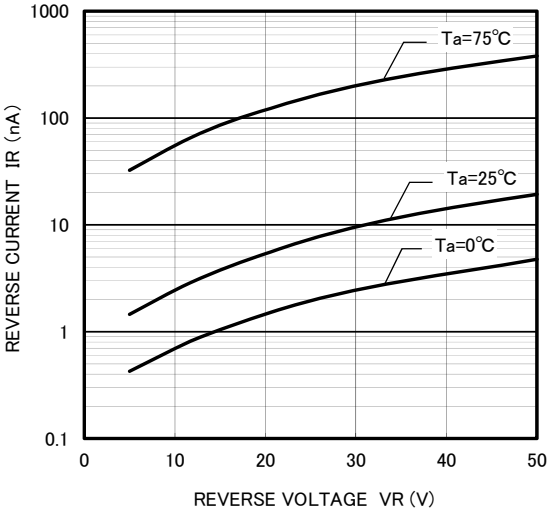


TYPICAL CHARACTERISTICS（Di3・Di4）

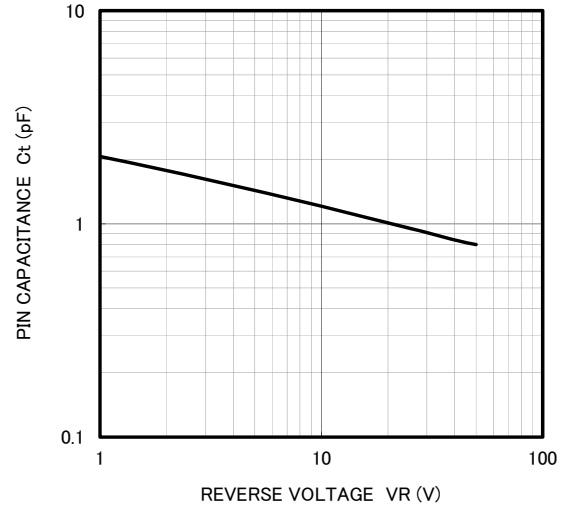
FORWARD CURRENT
VS. FORWARD VOLTAGE



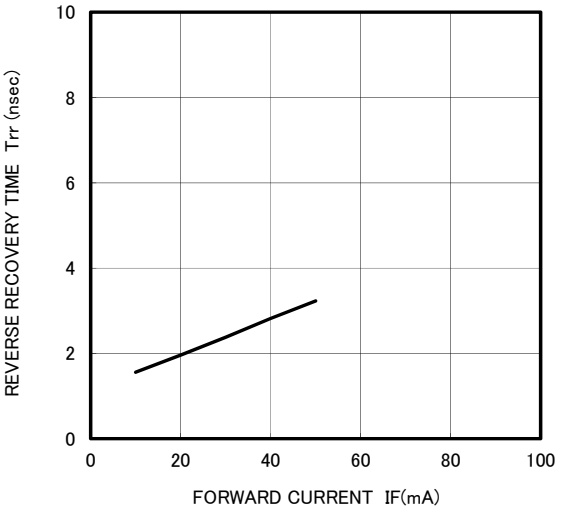
REVERSE CURRENT
VS. REVERSE VOLTAGE



PIN CAPACITANCE
VS. REVERSE VOLTAGE



REVERSE RECOVERY TIME
VS. FORWARD CURRENT



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