PRELIMINARY
Notice : This is not a final specification
Some parametric are subject to change.

RT3W77M

Composite Transistor
For General Purpose High Current Drive Application
Silicon Epitaxial Type

DESCRIPTION

RT3W77M is compound transistor built with 2SC6046 chip and 2SA2166 chip in SC-88 package.

FEATURE

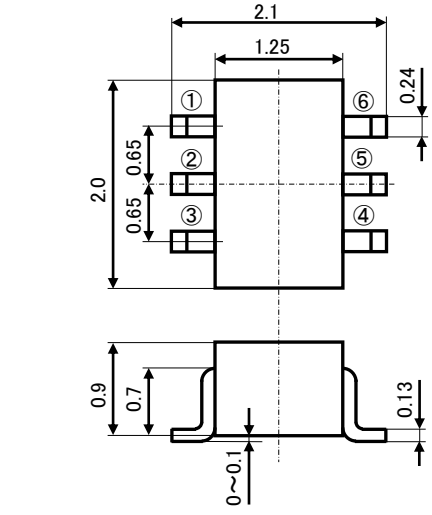
- High collector current
- Low collector to emitter saturation voltage
- Each transistor elements are independent
- Mini package for easy mounting

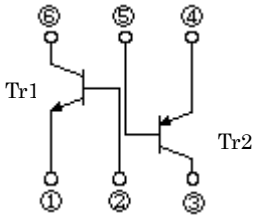
APPLICATION

For switching application, small type motor drive application

OUTLINE DRAWING

Unit : mm





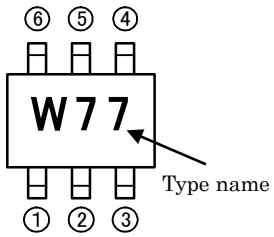
TERMINAL CONNECTOR
①: EMITTER1
②: BASE1
③: COLLECTOR2
④: EMITTER2
⑤: BASE2
⑥: COLLECTOR1

JEITA : SC-88

MAXIMUM RATING (Ta=25℃) (Tr1_NPN, Rr2_PNP)

SYMBOL	PARAMETER	RATING		UNIT
		Tr1	Tr2	
V_{CEO}	Collector to Emitter voltage	40	-60	V
V_{CBO}	Collector to Base voltage	75	-60	V
V_{EBO}	Emitter to Base voltage	6	-5	V
I_C	Collector current	600	-500	mA
P_T	Total dissipation	200		mW
T_j	Junction temperature	+150		℃
T_{stg}	Storage temperature	-55～+150		℃

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25℃) (Tr1_NPN, Rr2_PNP)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CEO}$	Collector to Emitter breakdown voltage	I_C=1mA,I_B=0	40	–	–	V
		I_C=-1mA,I_B=0	-60	–	–	
$V_{(BR)CBO}$	Collector to Base breakdown voltage	I_C=10μA,I_E=0	75	–	–	V
		I_C=-10μA,I_E=0	-60	–	–	
$V_{(BR)EBO}$	Emitter to Base breakdown voltage	I_E=10μA,I_C=0	6	–	–	V
		I_E=-10μA,I_C=0	-5	–	–	
I_{CBO}	Collector cut off current	V_{CB}=60V,I_E=0	–	–	0.1	μA
		V_{CB}=-50V,I_E=0	–	–	-0.1	
I_{EBO}	Emitter cut off current	V_{EB}=3V,I_C=0	–	–	0.1	μA
		V_{EB}=-3V,I_C=0	–	–	-0.1	
h_{FE}	DC forward current gain	V_{CE}=10V,I_C=150mA	100	–	300	–
		V_{CE}=-10V,I_C=-150mA				
$V_{CE(sat)}$	Collector to Emitter saturation voltage	I_C=150mA,I_B=15mA	–	–	0.3	V
		I_C=-150mA,I_B=-15mA	–	–	-0.4	
$V_{BE(sat)}$	Base to Emitter saturation voltage	I_C=150mA,I_B=15mA	0.6	–	1.2	V
		I_C=-150mA,I_B=-15mA	–	–	-1.3	
f_T	Gain band width product	V_{CE}=20V,I_E=-50mA,f=100MHz	–	250	–	MHz
		V_{CE}=-20V,I_E=50mA,f=100MHz	200	–	–	
C_{ob}	Collector output capacitance	V_{CB}=10V,f=1MHz	–	–	8	pF
		V_{CB}=-10V,f=1MHz				

Keep safety first in your circuit designs!

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