RT3C66M-T150

Dual Transistor
For Differential Amplify Application
Silicon NPN Epitaxial Type

AEC-Q101 Compliance

DESCRIPTION

RT3C66M is a silicon NPN epitaxial type dual transistor.
It is designed for differential amplify application.

FEATURE

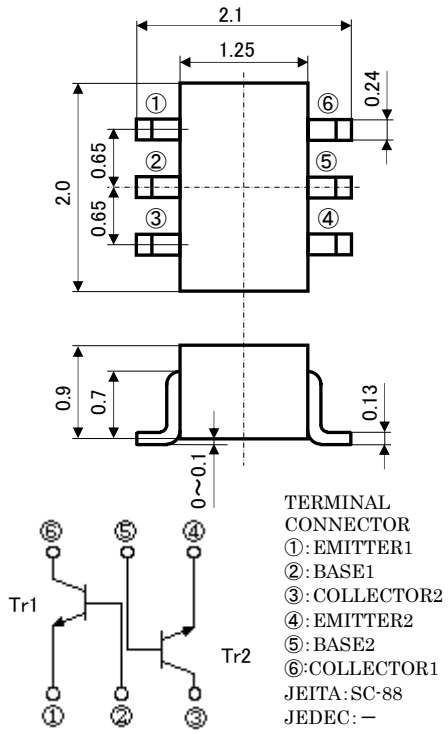
- ●High VCEO VCEO=160V
- ●Good two elements characteristics
  hFE1/hFE2=1.0 typ
  | VBE1-VBE2 | =0mV typ

APPLICATION

For differential amplify application.

OUTLINE DRAWING

Unit:mm

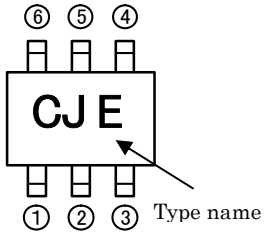


TERMINAL
CONNECTOR
①:EMITTER1
②:BASE1
③:COLLECTOR2
④:EMITTER2
⑤:BASE2
⑥:COLLECTOR1
JEITA:SC-88
JEDEC:－

MAXIMUM RATING (Ta=25℃) (Tr1 , Tr2.)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	180	V
VEBO	Emitter to Base voltage	6	V
VCEO	Collector to Emitter voltage	160	V
ICM	Peak collector current	200	mA
IC	Collector current	100	mA
PT	Total dissipation	200	mW
Tj	Junction temperature	+150	℃
Tstg	Storage temperature	-55～+150	℃

MARKING

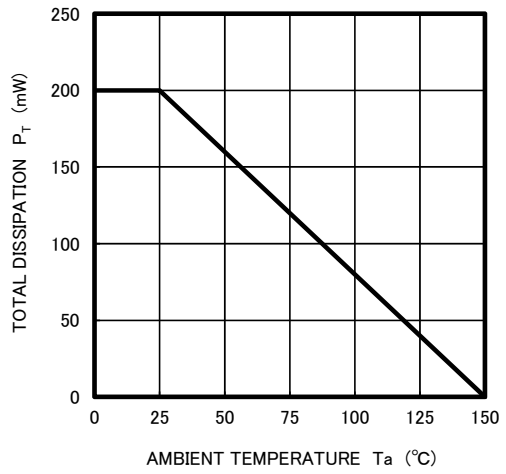


ELECTRICAL CHARACTERISTICS (Ta=25℃) (Tr1, Tr2.)

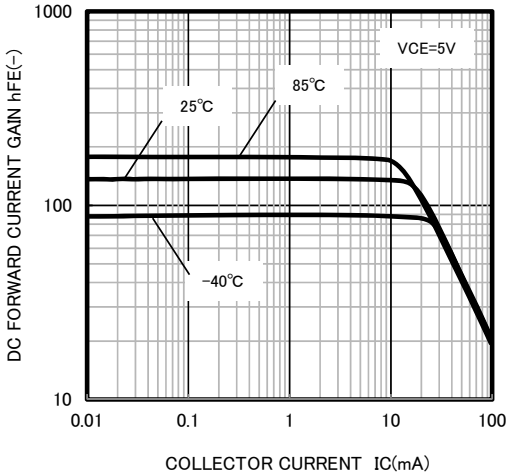
SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
V(BR)CBO	C to B breakdown voltage	IC=100μA, IE=0A	180	−	−	V
V(BR)EBO	E to B breakdown voltage	IE=10μA, IC=0A	6	−	−	V
V(BR)CEO	C to E breakdown voltage	IC=1mA, RBE=∞	160	−	−	V
ICBO	Collector cut off current	VCB=120V, IE =0A	−	−	100	nA
IEBO	Emitter cut off current	VEB=4V, IC=0A	−	−	100	nA
hFE1	DC forward current gain1	VCE=5V, IC=1mA	72	−	−	−
hFE2	DC forward current gain2	VCE=5V, IC=10mA	72	−	330	−
hFE3	DC forward current gain3	VCE=5V, IC=50mA	27	−	−	−
VCE(sat)1	C to E saturation voltage1	IC=10mA, IB=1mA	−	−	0.15	V
VCE(sat)2	C to E saturation voltage2	IC=50mA, IB=5mA	−	−	0.2	V
VBE(sat)1	B to E saturation voltage1	IC=10mA, IB=1mA	−	−	1.0	V
VBE(sat)2	B to E saturation voltage2	IC=50mA, IB=5mA	−	−	1.0	V
| VBE1-VBE2 | (※VBE1:Tr1,VBE2:Tr2)	B-E voltage differential	VCE=5V, IC=1mA	−	0	10	mV
hFE1/hFE2 (※hFE1:Tr1,hFE2:Tr2)	DC forward current gain ratio	VCE=5V, IC=1mA	0.9	1.0	1.1	−
fT	Gain bandwidth product	VCE=10V, IE=-10mA	100	−	300	MHz
Cob	Collector output capacitance	VCB=10V, IE=0A, f=1MHz	−	1.7	6	pF
Cib	Emitter input capacitance	VEB=0.5V, IC=0A, f=1MHz	−	−	20	pF

TYPICAL CHARACTERISTICS (Tr1,Tr2.)

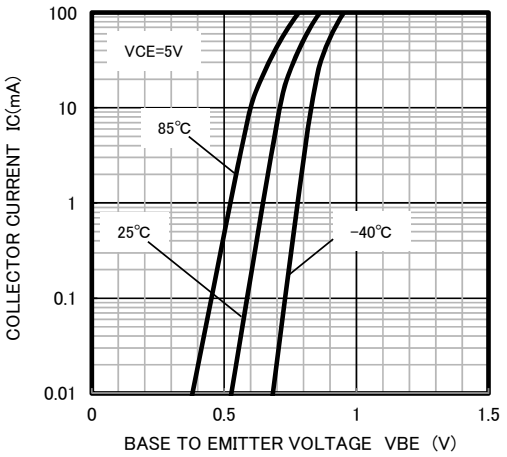
TOTAL DISSIPATION VS.
AMBIENT TEMPERATURE



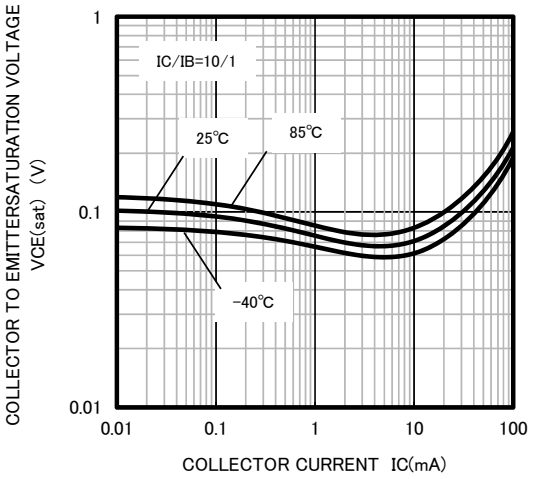
DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT



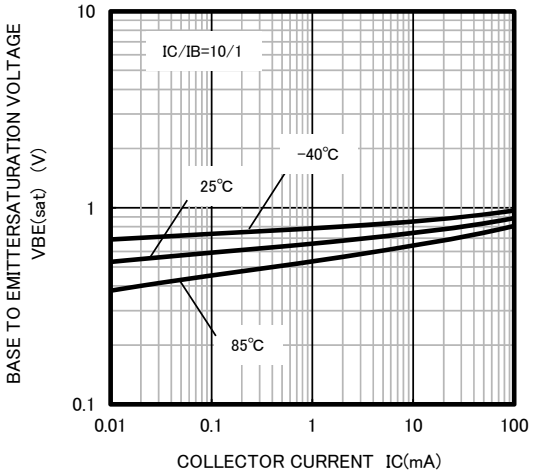
COMMON EMITTER TRANSFER



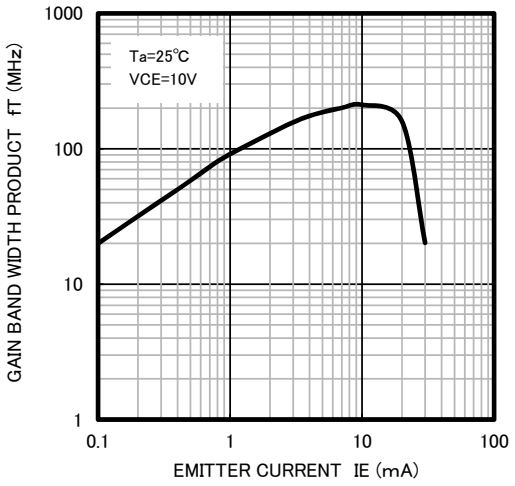
COLLECTOR TO EMITTERSATURATION
VOLTAGE VS. COLLECTOR CURRENT



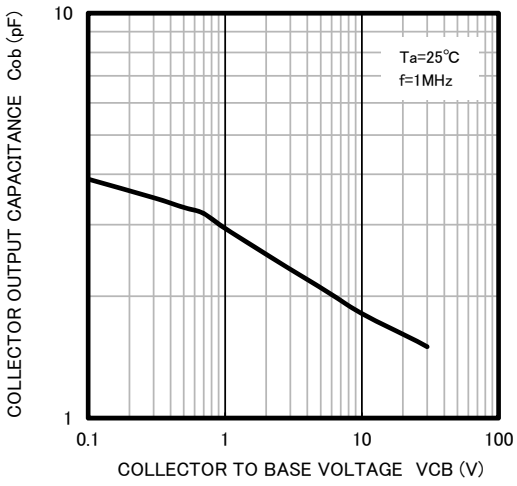
BASE TO EMITTERSATURATION VOLTAGE
VS. COLLECTOR CURRENT



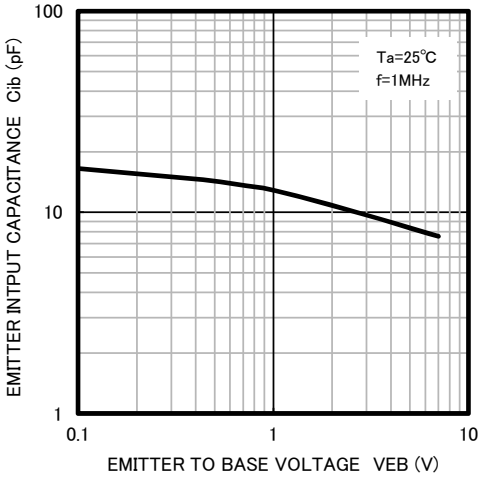
GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



EMITTER INPUT CAPACITANCE
VS. EMITTER TO BASE VOLTAGE



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