

Description

- General purpose transistor

Feature

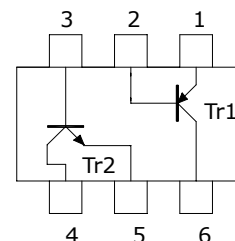
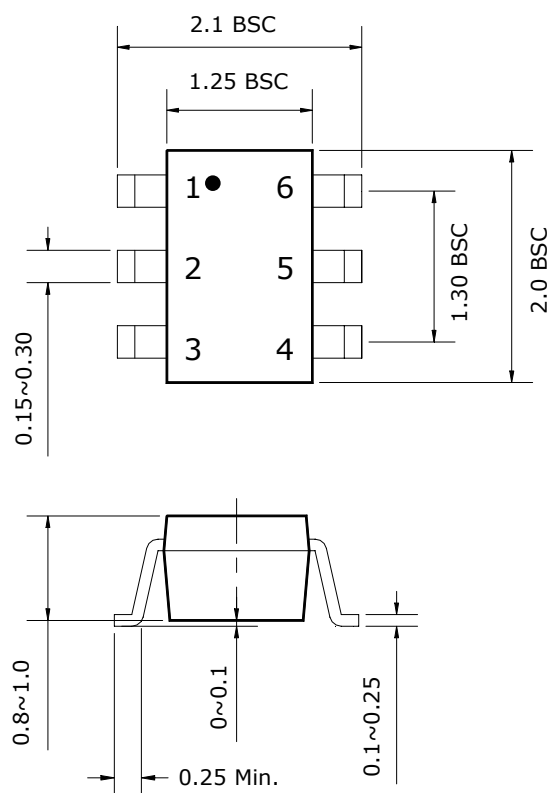
- Both 2SA1980 chip and 2SC5343 chip in SOT-363 package

Ordering Information

Type NO.	Marking	Package Code
SUT484J	4X	SOT-363

Outline Dimensions

unit : mm



PIN Connections

1. Emitter 1
2. Base 1
3. Base 2
4. Collector 2
5. Emitter 2
6. Collector 1

Absolute maximum ratings (Tr1, Tr2)
Ta=25°C

Characteristic	Symbol	Ratings		Unit
		Tr1	Tr2	
Collector-Base voltage	V_{CBO}	-50	60	V
Collector-Emitter voltage	V_{CEO}	-50	50	V
Emitter-base voltage	V_{EBO}	-5	5	V
Collector current	I_C	-150	150	mA
Collector dissipation	P_C	150		mW
Junction temperature	T_j	150		°C
Storage temperature range	T_{stg}	-55~150		°C

Electrical Characteristics (Tr1 : PNP)
Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-50	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = -10\mu A, I_C = 0$	-5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -2mA$	120	-	400	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$	-	-	-0.3	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -1mA, f = 100MHz$	80	-	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	4	7	pF

Electrical Characteristics (Tr2 : NPN)
Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	60	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = 10\mu A, I_C = 0$	5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	-	0.1	μA
DC current gain	h_{FE}	$V_{CE} = 6V, I_C = 2mA$	70	-	700	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$	-	-	0.25	V
Transition frequency	f_T	$V_{CE} = 10V, I_C = 1mA, f = 100MHz$	80	-	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	2	3.5	pF

Electrical Characteristic Curves

Tr1 : PNP

Fig. 1 $I_C - V_{BE}$

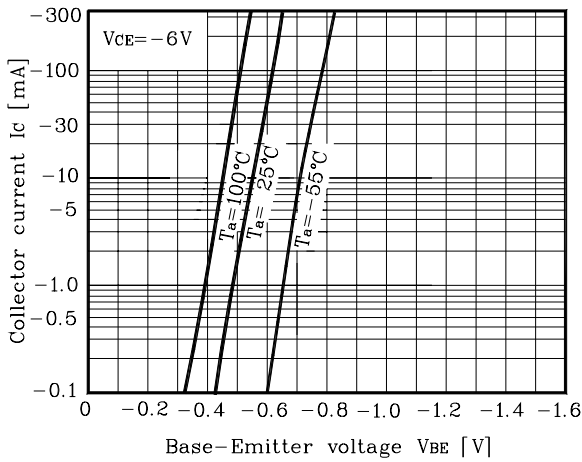


Fig. 2 $I_C - V_{CE}$

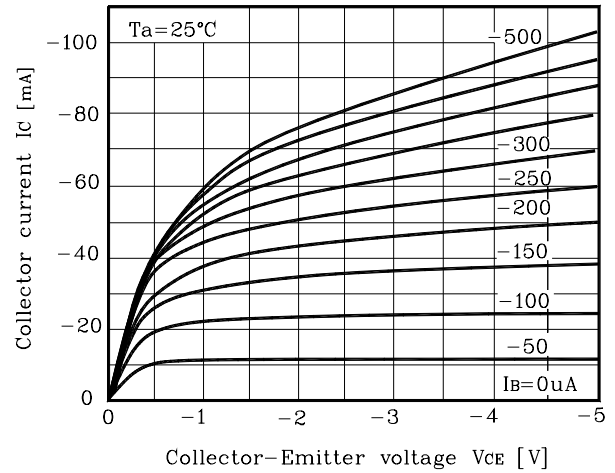


Fig. 3 $h_{FE} - I_C$

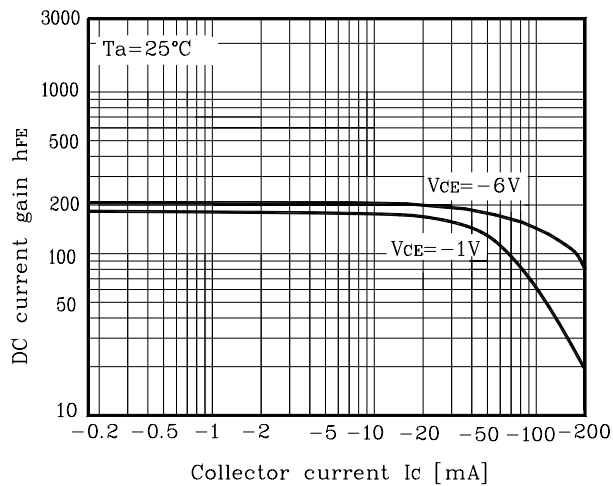
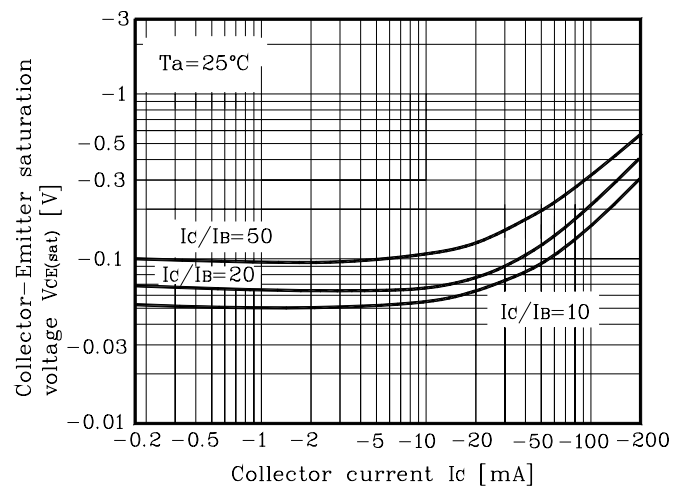


Fig. 4 $V_{CE(sat)} - I_C$



Tr2 : NPN

Fig. 1 $I_C - V_{BE}$

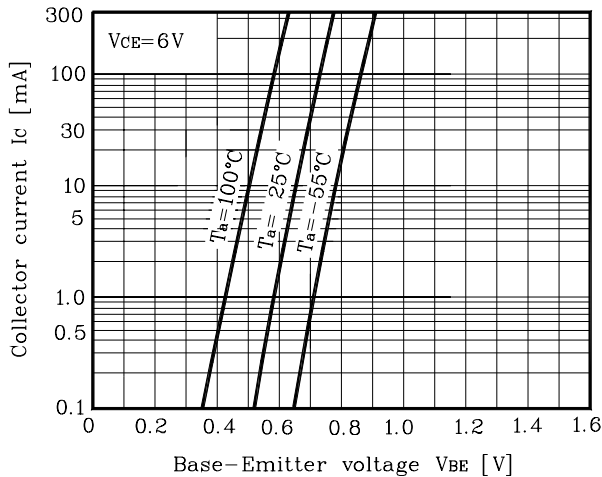
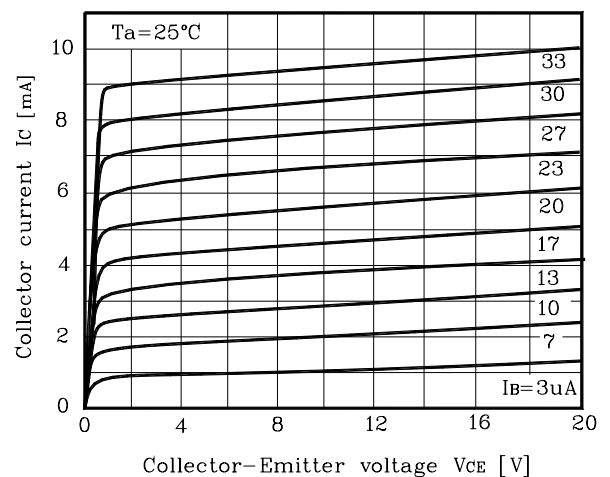
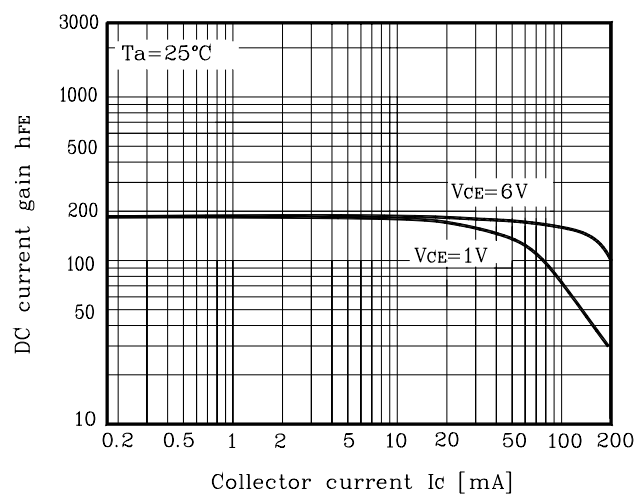
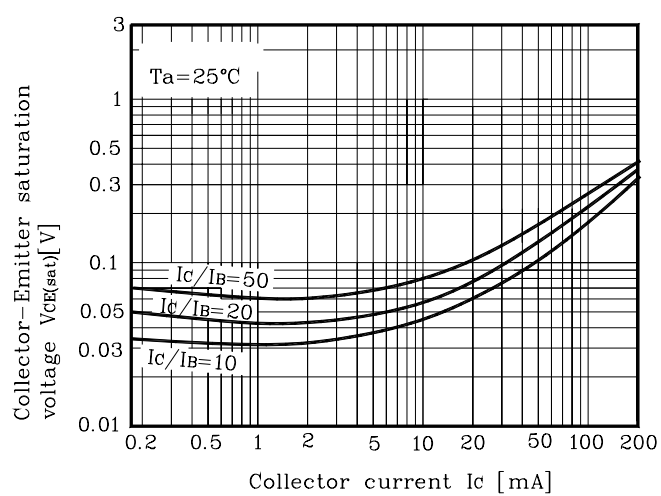


Fig. 2 $I_C - V_{CE}$



Electrical Characteristic Curves

Fig. 3 $h_{FE}-I_C$ Fig. 4 $V_{CE(sat)}-I_C$ 

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