

Epitaxial planar PNP/NPN silicon transistor

Descriptions

• Complex type bipolar transistor

Features

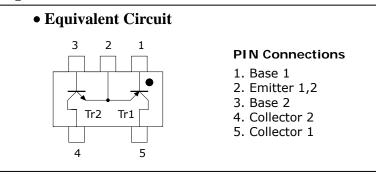
- Small package save PCB area
- Reduce quantity of parts and mounting cost
- Both 2SA1980 chip and 2SC5343 chip in SOT-353 package

Ordering Information

Type NO.	Marking	Package Code
SUT497H	X8□	SOT-353

□ : Year & Week Code

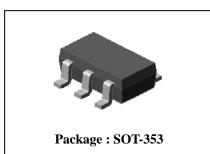
Equivalent circuit & PIN Connections



Absolute Maximum Ratings [Tr1, Tr2]

Absolute Maximum Ratings [Tr1,	(Ta=25°C)			
Characteristic	Crumb al	Rating		Unit
Characteristic	Symbol	Tr1	Tr2	Oint
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 power dissipation	P _c [*]	200		mW
Junction temperature	Tյ	150		°C
Storage temperature range	T _{stg}	-55~150		°C

***:** Total rating

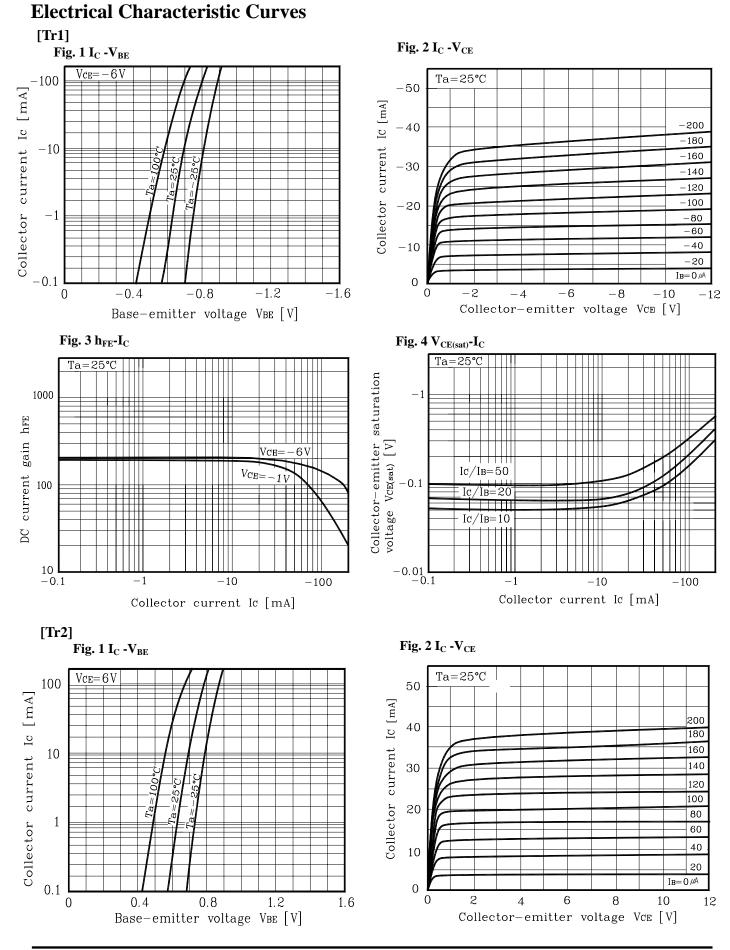


Electrical Characteristics [Tr1]

Electrical Characteristics [Tr1]					(Ta=	=25°C)
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-emitter breakdown voltage	BV _{CEO}	I _C =-1mA, I _B =0	-50	-	-	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
Base-emitter voltage	V _{BE}	V_{CE} =-6V, I _C =-2mA	-	-0.65	-	V
Transition frequency	f⊤	V_{CE} =-10V, I _C =-10mA	-	200	-	MHz
Collector output capacitance	C _{ob}	V_{CB} =-10V, I_E =0, f=1MHz	-	4	-	pF

Electrical Characteristics [Tr2]

Electrical Characteristics [Tr2]					(Ta=25°C)	
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-emitter breakdown voltage	BV _{CEO}	$I_{C}=1mA$, $I_{B}=0$	50	-	-	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	120	-	400	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_{C} =100mA, I_{B} =10mA	-	-	0.25	V
Base-emitter voltage	V _{BE}	V _{CE} =6V, I _C =2mA	-	0.65	-	V
Transition frequency	f⊤	V_{CE} =10V, I_{C} =10mA	-	200	-	MHz
Collector output capacitance	C _{ob}	V_{CB} =10V, I_E =0, f=1MHz	-	2	-	pF

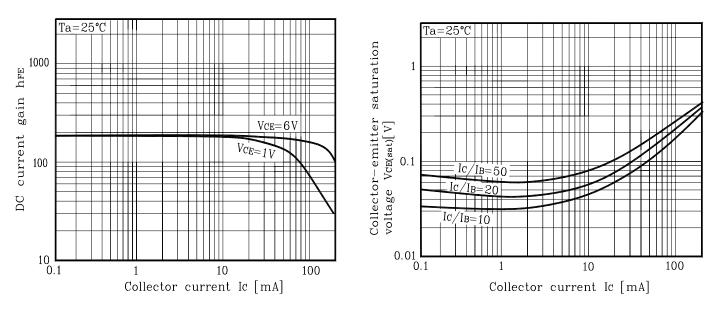


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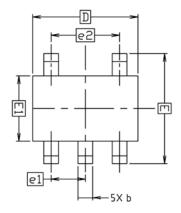
Electrical Characteristic Curves

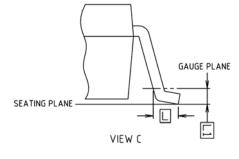
Fig. 3 h_{FE} - I_C

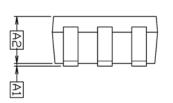
Fig. 4 $V_{CE(sat)}$ -I_C

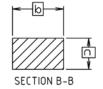


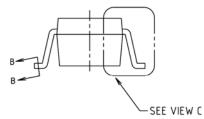
Outline Dimension







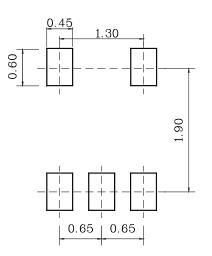




	N	MILLIMETERS			
SYMBOL	MINIMUM	NOMINAL	MAXIMUM	NOTE	
A1	0.00	-	0.10		
A2	0.90	0.95	1.00		
Ь	0.25	-	0.40		
с	0.10	_	0.25		
D	1.90	2.00	2.10		
E	1.95	2.10	2.25		
E1	1.15	1.25	1.35		
e1					
e2					
L	0.25	 0.15 BS	-		
L1					

* Recommend PCB solder land [U

[Unit: mm]



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