PRODUCT DATA SHEET

To learn more about JGSEMI, please visit our website at

Datasheet Resources Samples

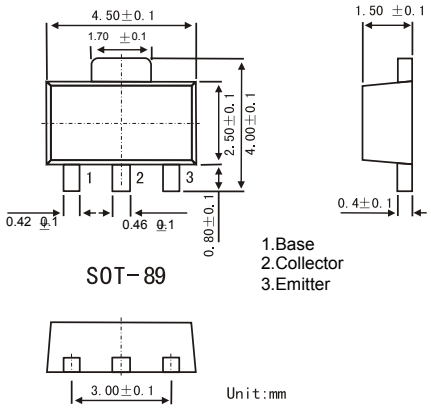
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

2SCR554P

NPN Transistors

Features

- World standard miniature package: SOT-89.
- High collector to base voltage: V_{CBO}＞100V.
- Excellent dc current gain linearity: h_{FE}=80TYP. (V_{CE}=2V, I_C=500mA).



Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	100	V
Collector-emitter voltage	V_{CEO}	80	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
Collector current (pulse) *	I_C	1.5	A
Total power dissipation at 25℃ ambient temperature *	P_T	2	W
Junction temperature	T_j	125	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1. PW≤10ms,duty cycle ≤50%

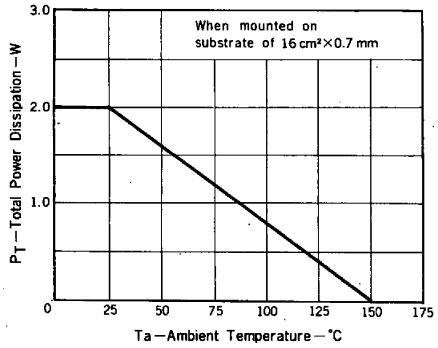
*2. When mounted on ceramic substrate of 16cm^2 X 0.7mm

Electrical Characteristics Ta = 25℃

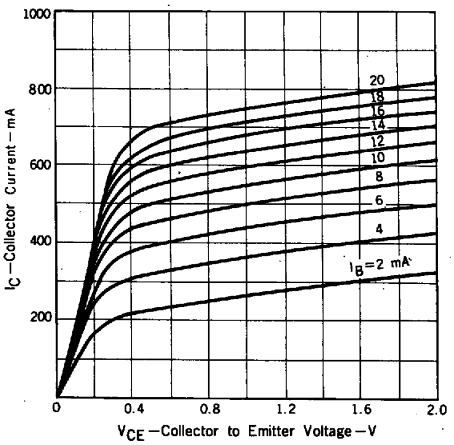
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA， I_E= 0	100			V
Collector- emitter breakdown voltage	V_{CEO}	I_C=1 mA， I_B= 0	80			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A， I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 100 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=500 mA, I_B=50mA			0.5	V
Base - emitter saturation voltage *	$V_{BE(sat)}$	I_C=500 mA, I_B=50mA			1.5	
Base - emitter voltage *	V_{BE}	V_{CE}= 10V, I_C= 10mA	0.6		0.7	
DC current gain *	h_{FE}	V_{CE}= 2V, I_C= 100mA	90	200	400	
		V_{CE}= 2V, I_C= 500mA	45	200		
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E=0,f=1MHz		12		pF
Transition frequency	f_T	V_{CE}= 5 V, I_E=-10mA		160		MHz

■ Typical Characterisitics

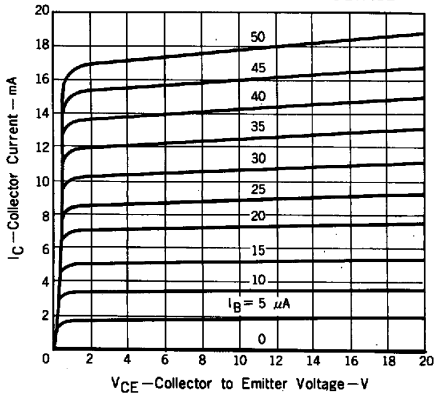
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



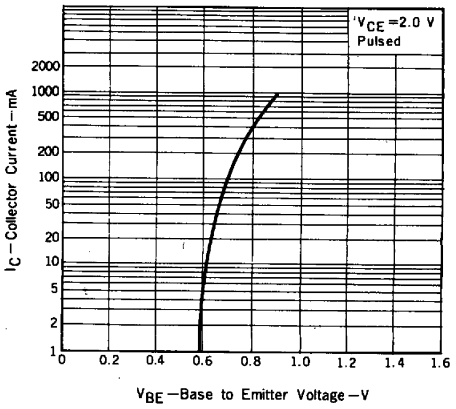
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



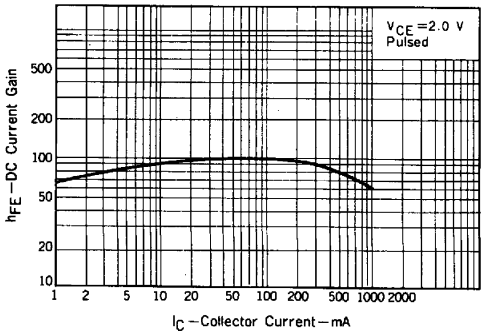
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



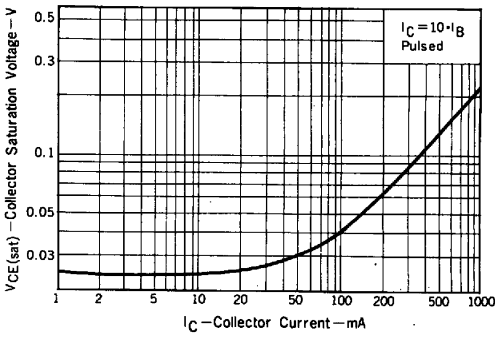
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT

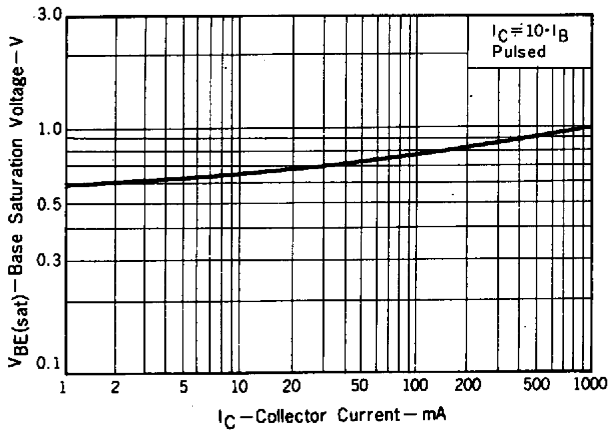


COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT

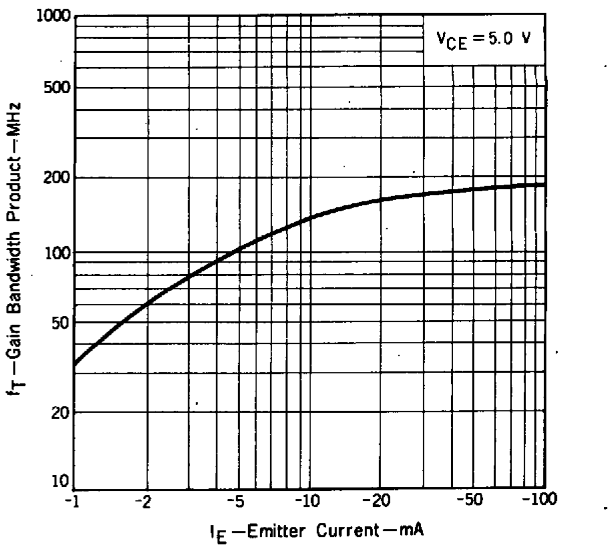


■ Typical Characterisitics

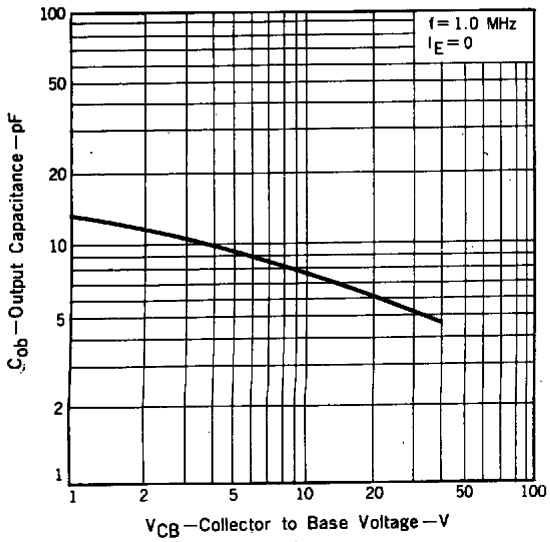
BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



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