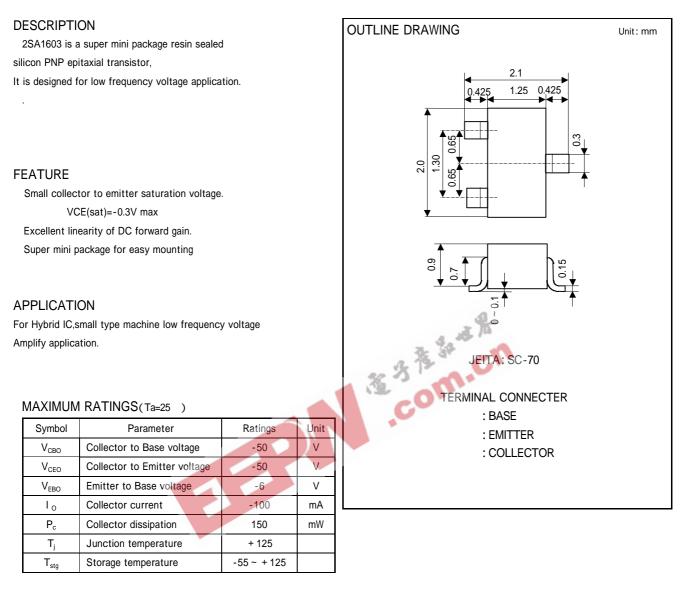
## SMALL-SIGNAL TRANSISTOR

# 2SA1603

FOR LOW FREQUENCY AMPLIFY APPLICATION SILICON PNP EPITAXIAL TYPE(Super mini type)



# ELECTRICAL CHARACTERISTICS(Ta=25 )

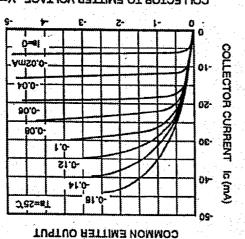
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Тур	Max	Unit
C to E break down voltage	V(BR)CEO	I <sub>c</sub> =-100 μ A ,R <sub>BE</sub> =	- 50	-	-	V
Collector cut off current	ICBO	V <sub>CB</sub> =-50V, I <sub>E</sub> =0mA	-	-	-0.5	μA
Emitter cut off current	IEBO	V <sub>EB</sub> =-4V, I <sub>C</sub> =0mA	-	-	-0.5	μA
DC forward current gain	hFE	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	120	-	820	
DC forward current gain	hFE	V <sub>CE</sub> =-6V, I <sub>C</sub> =-0.1mA	70	-	-	
C to E Saturation Vlotage	VCE(sat)	I <sub>c</sub> =-30mA ,I <sub>B</sub> =-1.5mA	-	-	-0.3	V
Gain bandwidth product	fT	V <sub>CE</sub> =-6V, I <sub>E</sub> =10mA	-	200	-	MHz
Collector output capacitance	Cob	V <sub>CB</sub> =-6V, I <sub>E</sub> =0,f=1MHz	-	2.5	-	pF

## ) It shows hFE classification in below table.

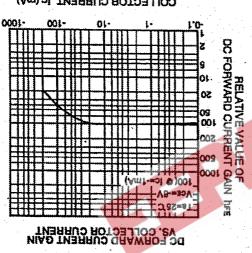
ltem	Q	R	S	Т
hFE Item	120~270	180~390	270~560	390~820

E031A2S (Transistor) Semiconductor

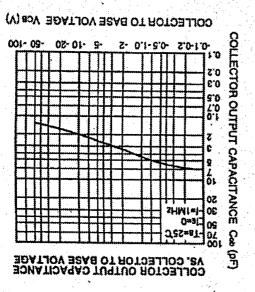
Silicon PNP Epitaxial Type (Super Mini type) For Low Frequency Amplify Application

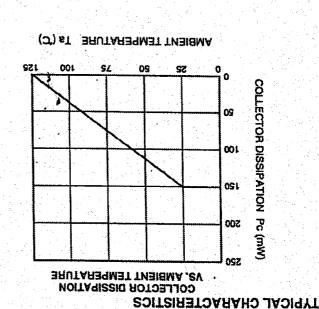


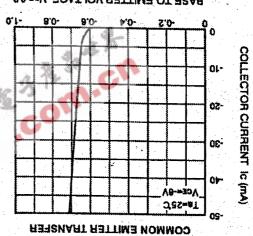
COLLECTOR TO EMITTER VOLTAGE VCE (V)



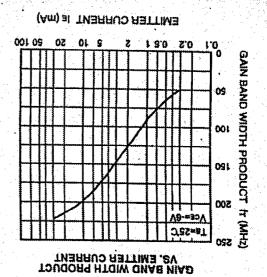
COLLECTOR CURRENT IC (mA)







W 36V SOLTAGE VOE VOE VOE





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