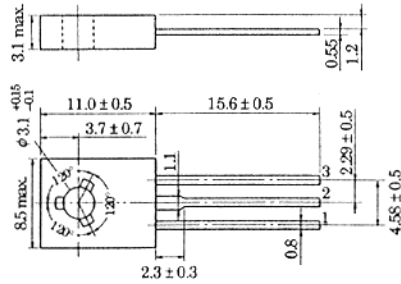


## 2SC4046

SILICON NPN EPITAXIAL  
HIGH VOLTAGE AMPLIFIER



1. Emitter
  2. Collector
  3. Base
- (Dimensions in mm)

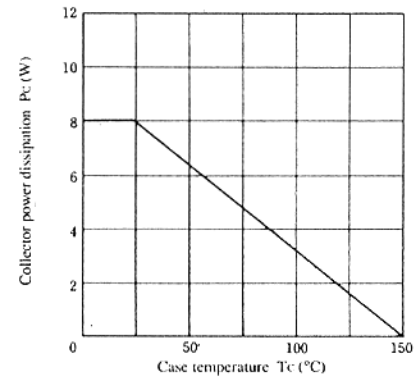
(JEDEC TO-126 MOD.)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC4046	Unit
Collector to base voltage	VCBO	120	V
Collector to emitter voltage	VCEO	120	V
Emitter to base voltage	VEBO	5	V
Collector current	IC	0.2	A
Collector power dissipation	PC*	8	W
Junction temperature	Tj	150	°C
Storage temperature	Tslg	-55 to +150	°C

\* Value at Tc = 25°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

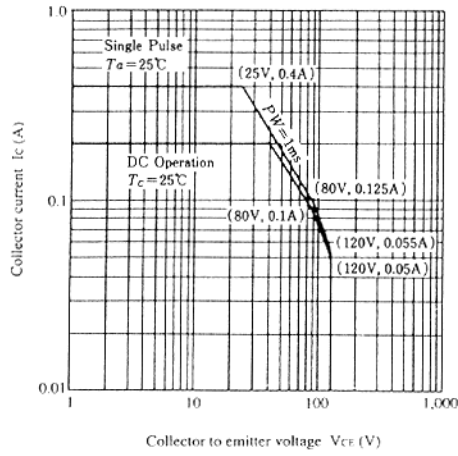
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V(BR)CBO	IC = 10μA, IE = 0	120	—	—	V
Collector to emitter breakdown voltage	V(BR)CEO	IC = 1mA, RBE = ∞	120	—	—	V
Emitter to base breakdown voltage	V(BR)EBO	IE = 10μA, IC = 0	5	—	—	V
Collector cutoff current	ICBO	VCE = 80V, IE = 0	—	—	10	μA
DC current transfer ratio	hFE*	VCE = 5V, IC = 10mA	250	—	800	
Base to emitter voltage	VBE		—	—	1.0	V
Collector to emitter saturation voltage	VCE(sat)	IC = 200mA, IB = 20mA	—	—	1.0	V
Gain bandwidth product	fT	VCE = 10V, IC = 50mA	—	350	—	MHz
Collector output capacitance	Cob	VCE = 30V, f = 1MHz, IE = 0	—	3.5	—	pF

\* The 2SC4046 is grouped by hFE as follows.

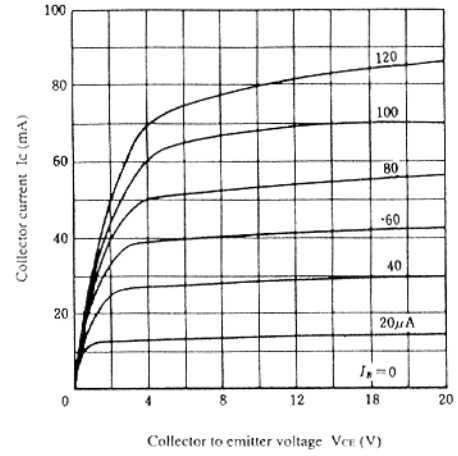
Grade	D	E
hFE	250 to 500	400 to 800

## 2SC4046

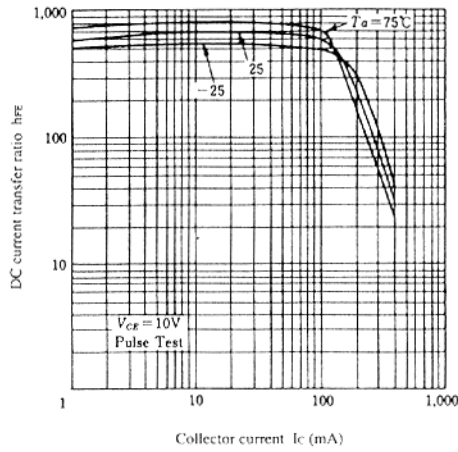
AREA OF SAFE OPERATION



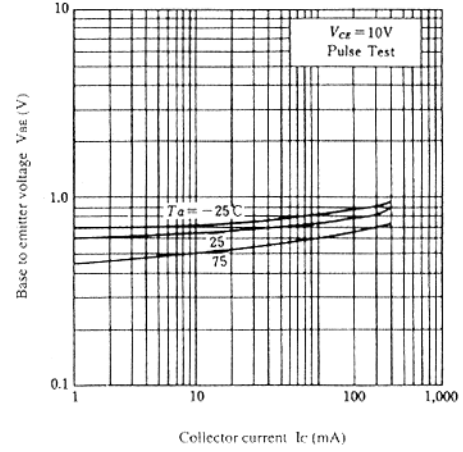
TYPICAL OUTPUT CHARACTERISTICS



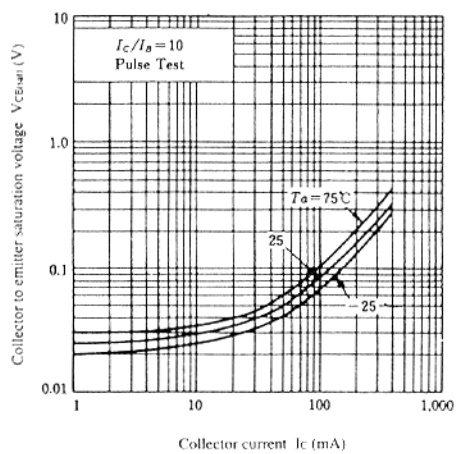
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



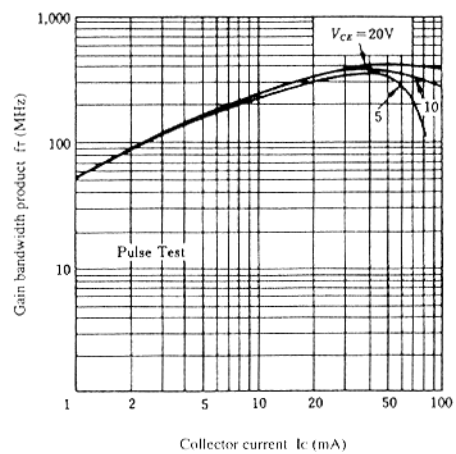
BASE TO EMITTER VOLTAGE VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



### COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE

