

# Chroma amplifier transistor (300V, 0.1A)

## 2SC4061K

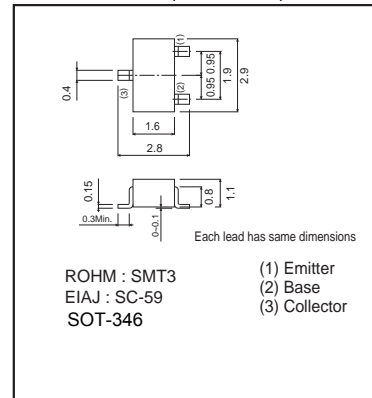
### ●Features

- 1) High breakdown voltage. ( $BV_{CEO}=300V$ )
- 2) Low collector output capacitance.  
(Typ. 3pF at  $V_{CB}=30V$ )
- 3) Ideal for chroma circuit.

### ●Absolute maximum ratings ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	300	V
Collector-emitter voltage	$V_{CEO}$	300	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	100	mA
Collector power dissipation	$P_C$	0.2	W
Junction temperature	$T_J$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

### ●Dimensions (Unit : mm)



### ●Packaging specifications and $h_{FE}$

Type	2SC4061K
Package	SMT3
$h_{FE}$	NP
Marking	AN*
Code	T146
Basic ordering unit (pieces)	3000

\* Denotes  $h_{FE}$

### ●Electrical characteristics ( $T_a=25^\circ C$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	300	-	-	V	$I_C=50\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	300	-	-	V	$I_C=100\mu A$
Emitter-base breakdown voltage	$BV_{EBO}$	5	-	-	V	$I_E=50\mu A$
Collector cutoff current	$I_{CBO}$	-	-	0.5	$\mu A$	$V_{CB}=200V$
Emitter cutoff current	$I_{EBO}$	-	-	0.5	$\mu A$	$V_{EB}=4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	2	V	$I_C/I_E=50mA/5mA$
DC current transfer ratio	$h_{FE}$	56	-	120	-	$V_{CE}/I_C=10V/10mA$
Gain bandwidth product	$f_T$	50	100	-	MHz	$V_{CE}=30V, I_E=-10mA, f=30MHz$
Collector output capacitance	$C_{ob}$	-	3	-	pF	$V_{CB}=30V, I_E=0A, f=1MHz$

●Electrical characteristics curves

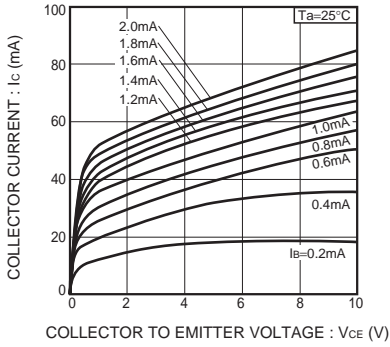


Fig.1 Ground emitter output characteristics ( I )

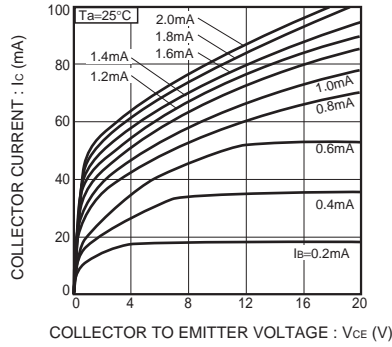


Fig.2 Ground emitter output characteristics ( II )

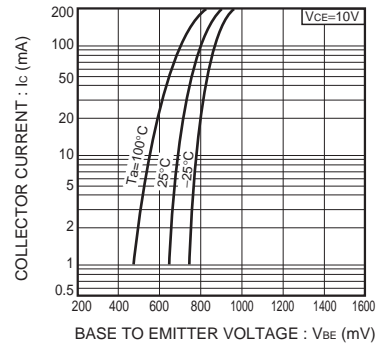


Fig.3 Ground emitter propagation characteristics

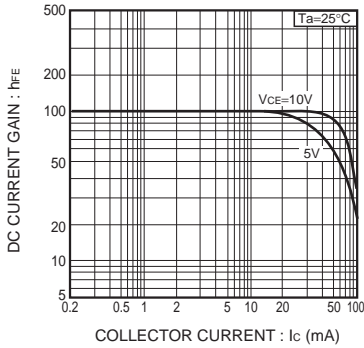


Fig.4 DC current gain vs. collector current ( I )

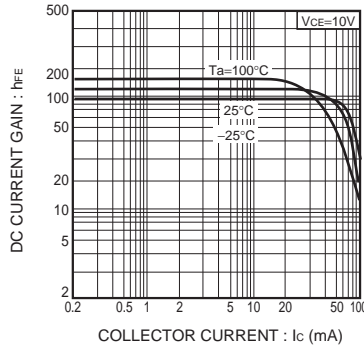


Fig.5 DC current gain vs. collector current ( II )

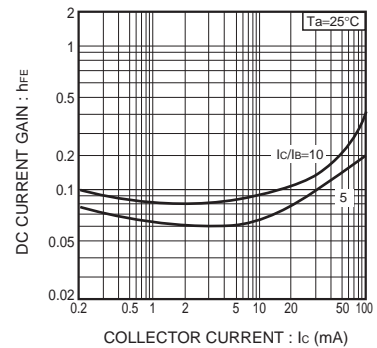


Fig.6 Collector-emitter saturation voltage vs. collector current

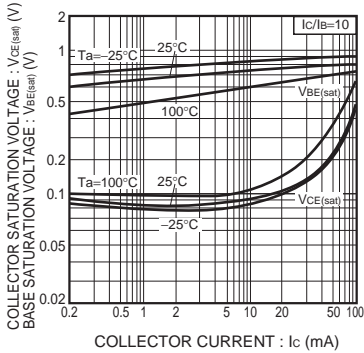


Fig.7 Collector-emitter saturation voltage Base-emitter saturation voltage vs. collector current

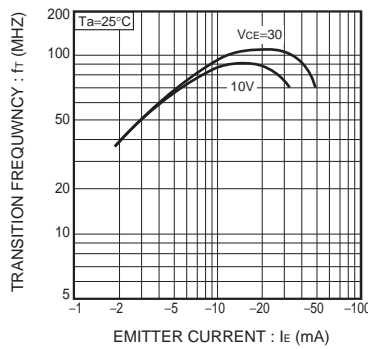


Fig.8 Gain bandwidth product vs. emitter current

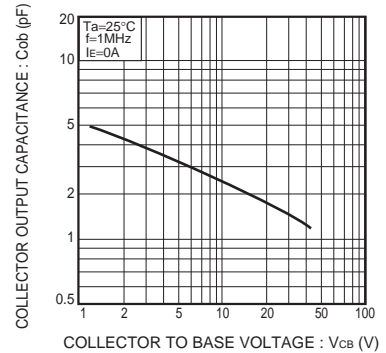


Fig.9 Collector output capacitance vs. collector-base voltage

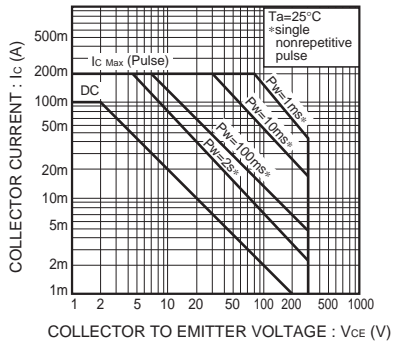


Fig.10 Safe operating area

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