

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2270

STROBO FLASH APPLICATIONS.

MEDIUM POWER AMPLIFIER APPLICATIONS.

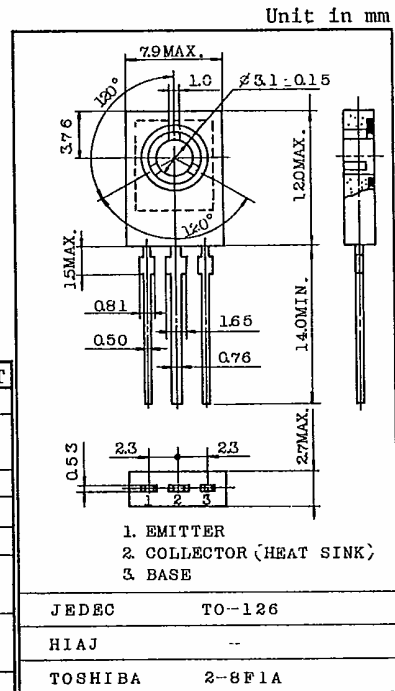
FEATURES:

- High DC Current Gain
: $h_{FE}=140\sim 450$ ($V_{CE}=2V, I_C=0.5A$)
 $h_{FE}=70$ (Min.) ($V_{CE}=2V, I_C=4A$)
- Low Saturation Voltage
: $V_{CE(sat)}=1.0V$ (Max.) ($I_C=4A, I_B=0.1A$)
- High Collector Power Dissipation
: $P_C=1.0W$ ($T_c=25^\circ C$), $P_C=1.0W$ ($T_a=25^\circ C$)

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	50	V
Collector-Emitter Voltage		V_{CES}	40	V
		V_{CEO}	20	V
Emitter-Base Voltage		V_{EBO}	8	V
Collector Current	DC	I_C	5	A
	Pulsed (Note 1)	I_{CP}	8	A
Emitter Current	DC	I_E	-5	A
	Pulsed (Note 1)	I_{EP}	-8	A
Collector Power Dissipation	$T_a=25^\circ C$	P_C	1.0	W
	$T_c=25^\circ C$		1.0	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$

Note 1 : Pulse Test :
Pulse Width = 10ms (Max.)
Duty Cycle = 30 % (Max.)



Mounting Kit No. AC46C
Weight : 0.72g

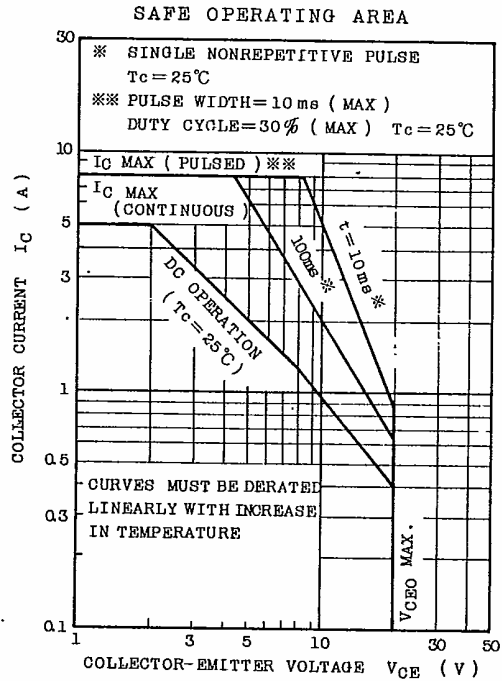
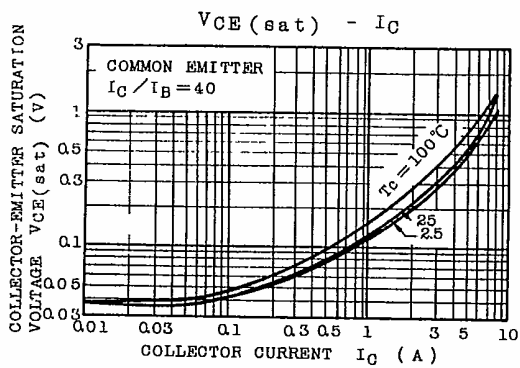
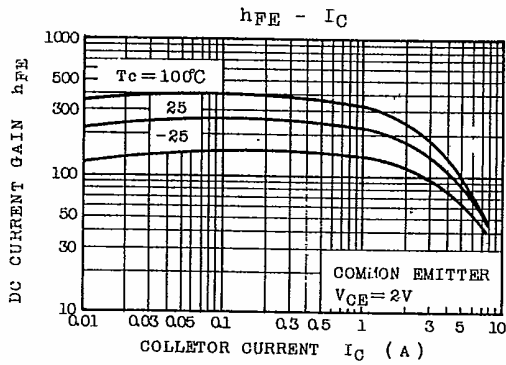
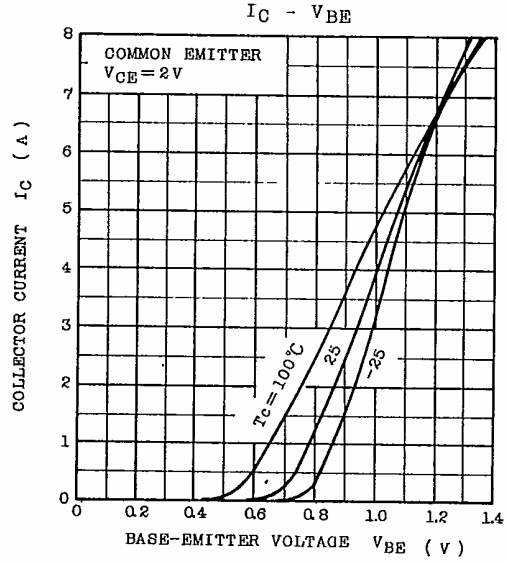
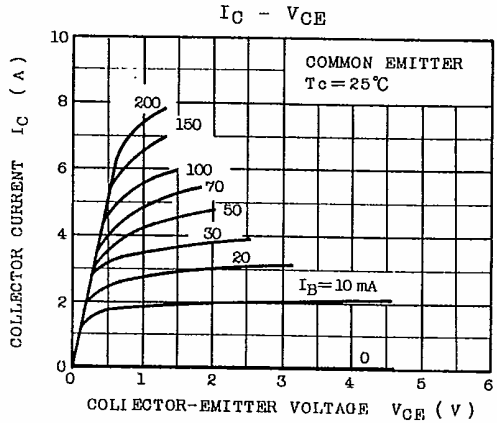
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=40V, I_E=0$	-	-	100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=8V, I_C=0$	-	-	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	20	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	8	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note 2)	$V_{CE}=2V, I_C=0.5A$	140	-	450	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=4A$	70	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.1A$	-	-	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V, I_C=4A$	-	-	1.5	V
Transition Frequency	f_T	$V_{CE}=2V, I_C=0.5A$	-	100	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	40	-	pF

Note 2 : $h_{FE(1)}$ Classification A : 140~240, B : 200~330, C : 300~450

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