2SC3346

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

HIGH CURRENT SWITCHING APPLICATIONS.

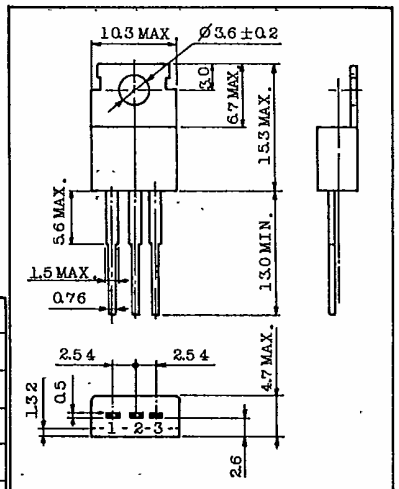
FEATURES:

. Low Collector Saturation Voltage
: $V_{CE(sat)}$=0.4V (Max.) (at I_C=6A)

. High Speed Switching Time : t_{stg}=1.0μs (Typ.)

. Complementary to 2SA1329

Unit in mm



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

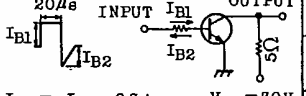
JEDEC	TO-220AB
EIAJ	SC-46
TOSHIBA	2-10A1A

Mounting Kit No. AC75
Weight : 1.9g

MAXIMUM RATINGS (Ta=25°C)

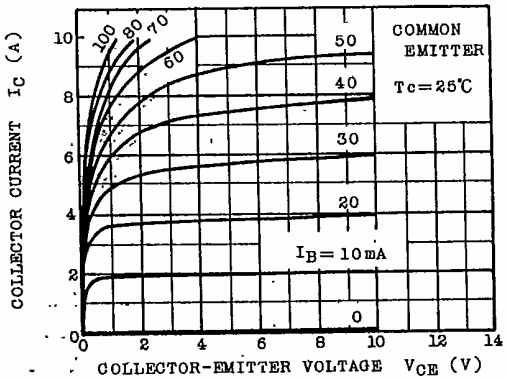
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	12	A
Base Current	I_B	2	A
Collector Power Dissipation (Tc=25°C)	P_C	40	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

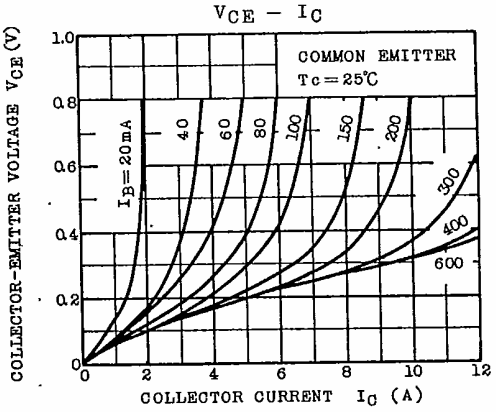
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=80V, I_E=0	-	-	10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=6V, I_C=0	-	-	10	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=50mA, I_B=0	80	-	-	V
DC Current Gain		$h_{FE(1)}$ (Note)	V_{CE}=1V, I_C=1A	70	-	240	
		$h_{FE(2)}$	V_{CE}=1V, I_C=6A	40	-	-	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=6A, I_B=0.3A	-	0.2	0.4	V
	Base-Emitter	$V_{BE(sat)}$	I_C=6A, I_B=0.3A	-	0.9	1.2	
Transition Frequency		f_T	V_{CE}=5V, I_C=1A	-	80	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	220	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.2	-	μs
	Storage Time	t_{stg}		-	1.0	-	
	Fall Time	t_f	I_{B1}=-I_{B2}=0.3A DUTY CYCLE≦1%	-	0.2	-	

Note : $h_{FE(1)}$ Classification O : 70~140, Y : 120~240

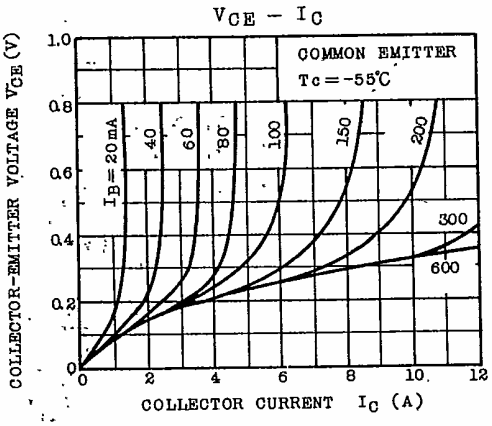
$I_C - V_{CE}$



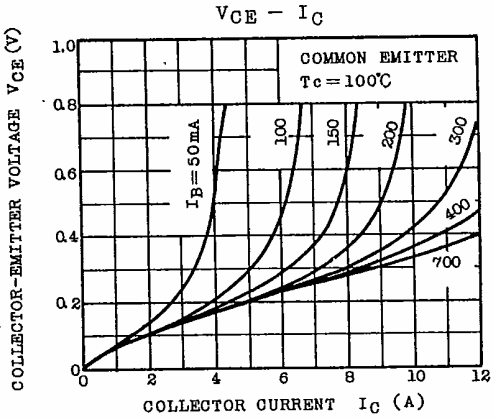
$V_{CE} - I_C$



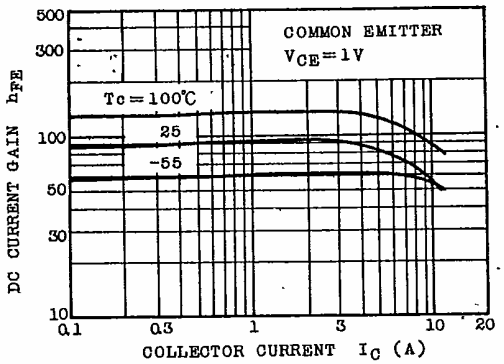
$V_{CE} - I_C$



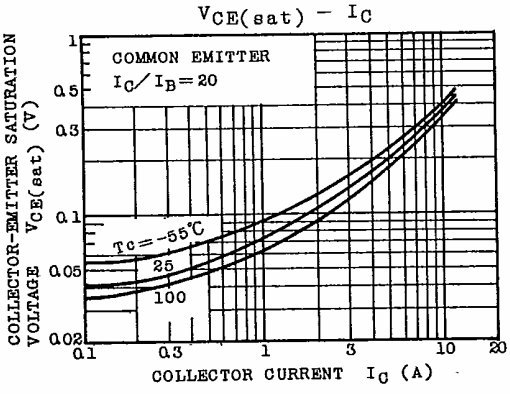
$V_{CE} - I_C$



$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



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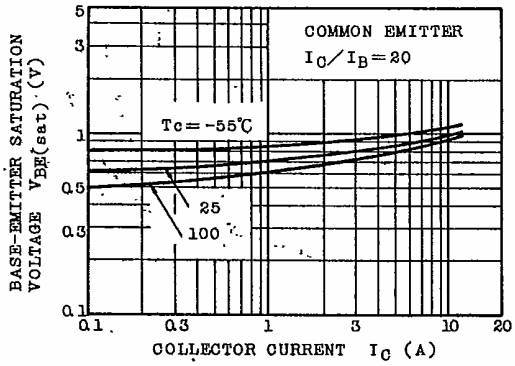
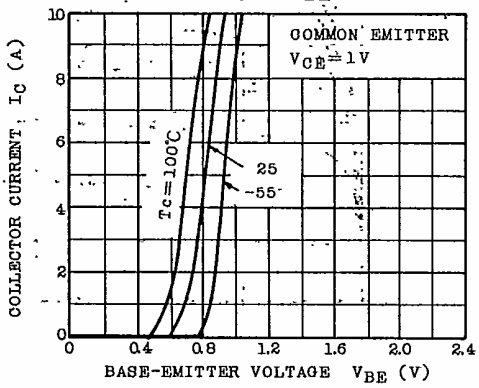
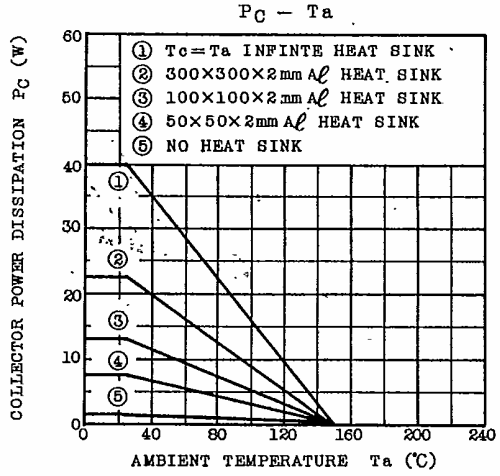
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$P_C - Ta$



SAFE OPERATING AREA