

2SC3346

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

HIGH CURRENT SWITCHING APPLICATIONS.

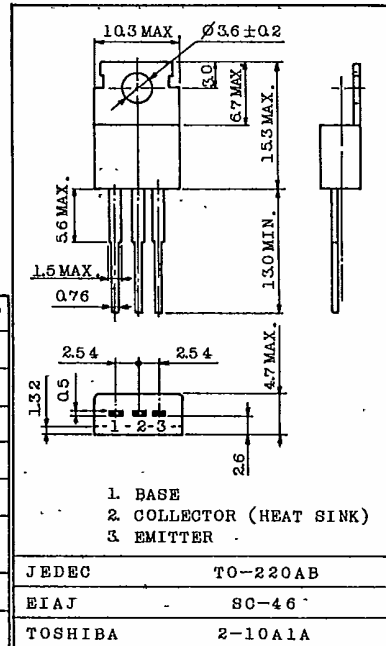
Unit in mm

FEATURES:

- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.4V$ (Max.) (at $I_C = 6A$)
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SA1329

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

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 ($T_c = 25^\circ C$)	P_C	40	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ C$



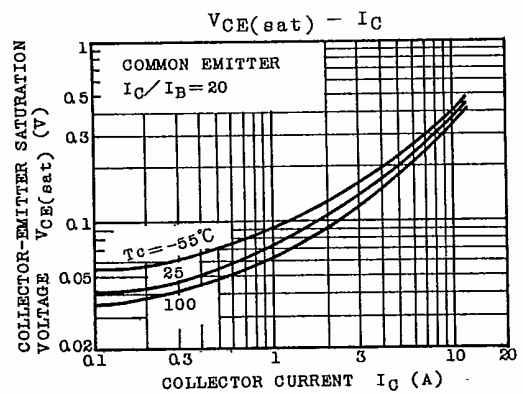
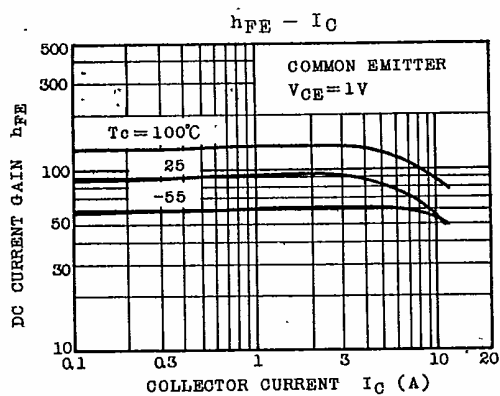
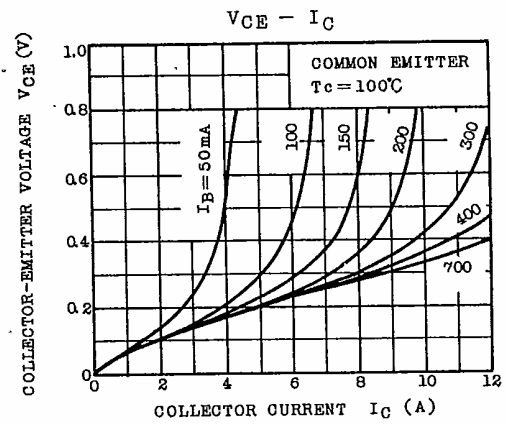
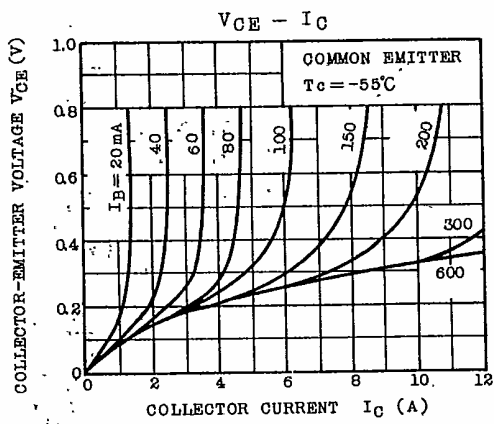
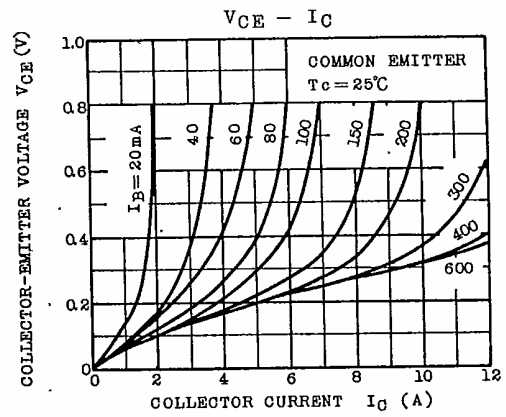
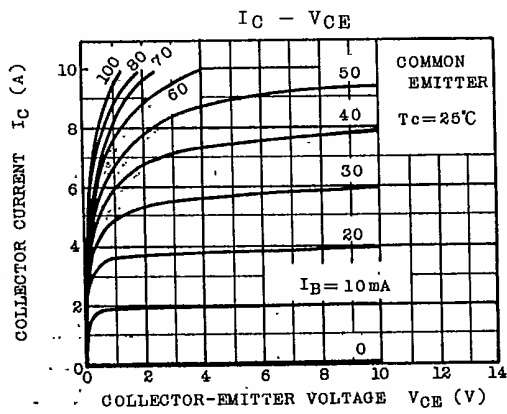
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

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	-	0.2	-	

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

TOSHIBA CORPORATION

2SC3346



2SC3346

