

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1293

HIGH CURRENT SWITCHING APPLICATIONS.

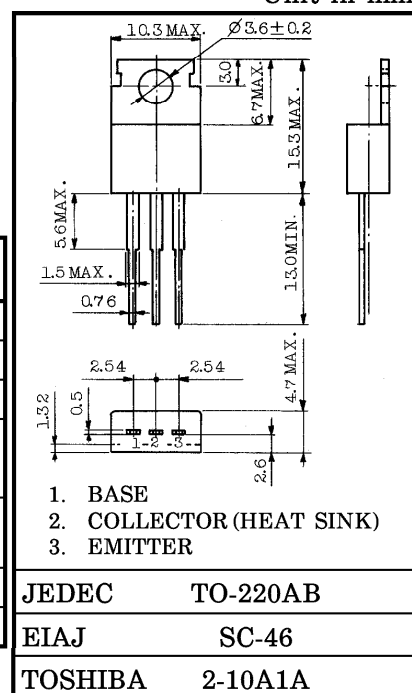
INDUSTRIAL APPLICATIONS

Unit in mm

- Low Collector Saturation Voltage : $V_{CE(sat)} = -0.4V$ (Max.) at $I_C = -3A$
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SC3258.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-80	V
Emitter-Base Voltage		V_{EBO}	-7	V
Collector Current	DC	I_C	-5	A
	Pulse	I_{CP}	-8	
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)		P_C	30	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55~150	$^\circ\text{C}$



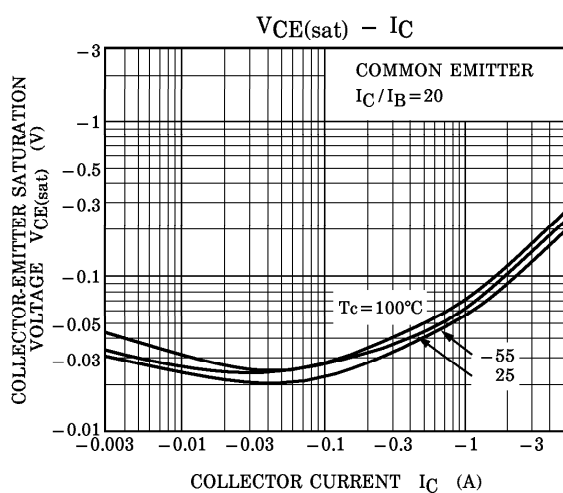
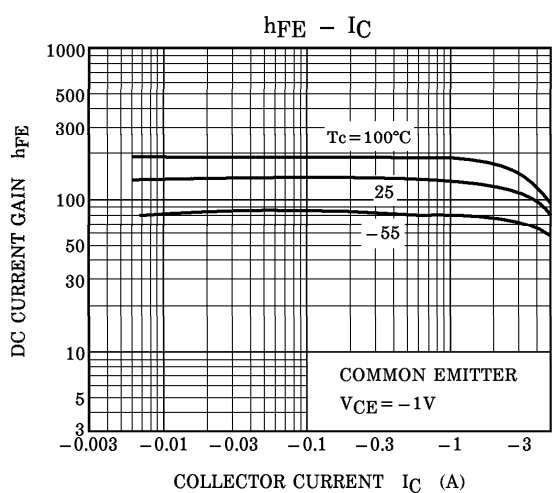
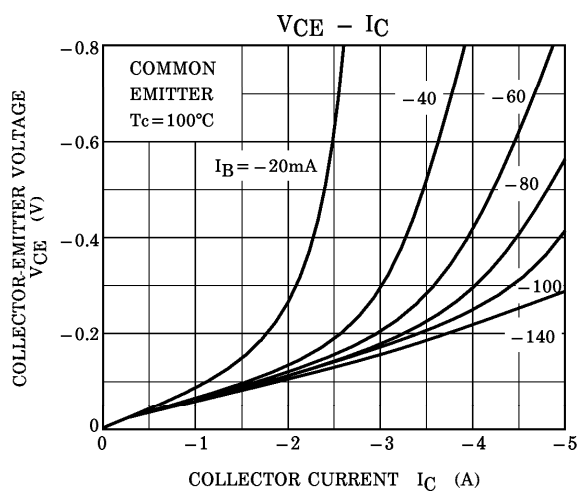
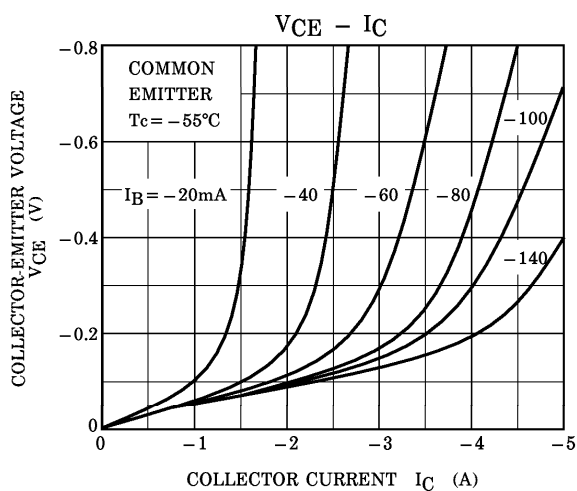
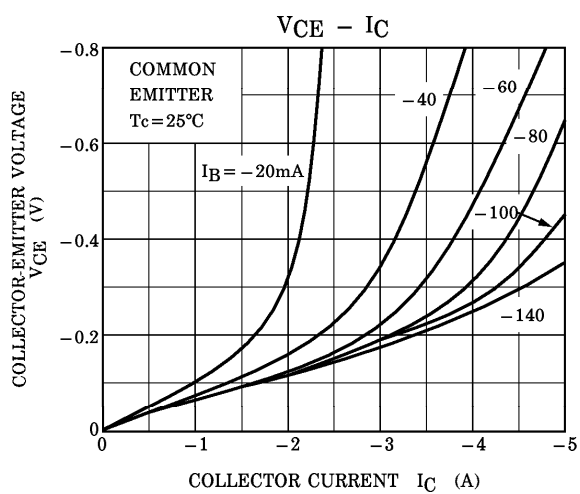
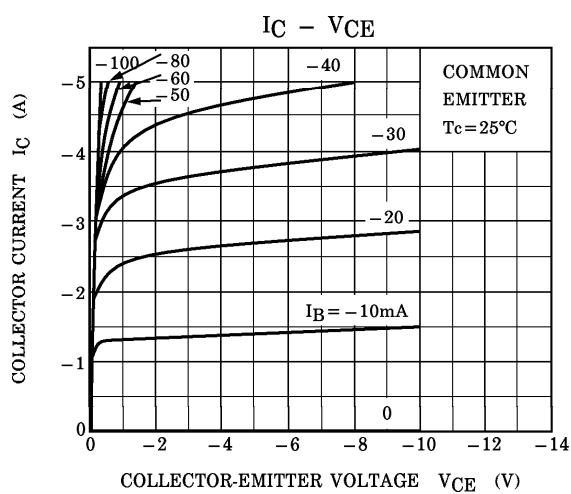
Mounting Kit No. AC75

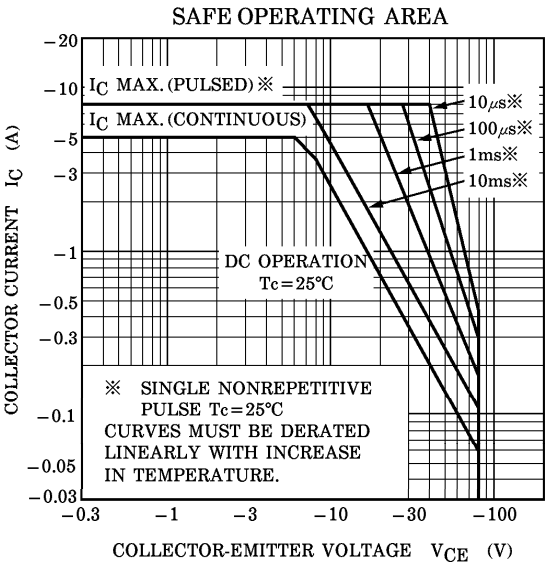
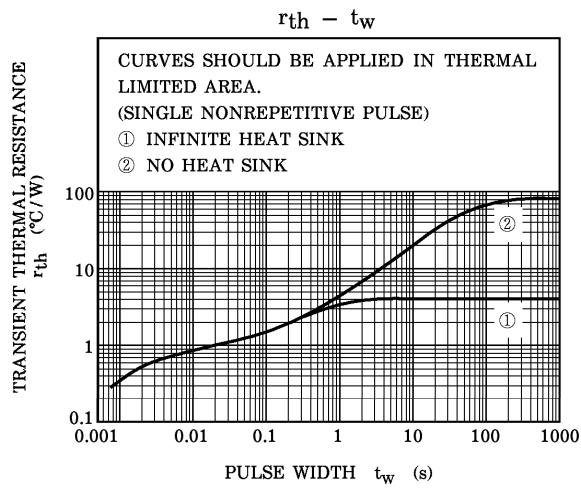
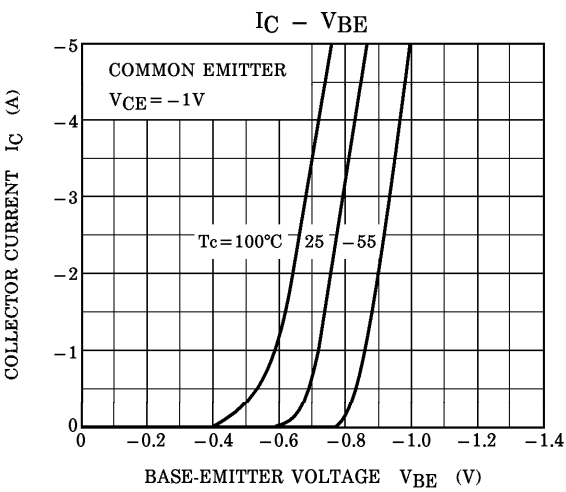
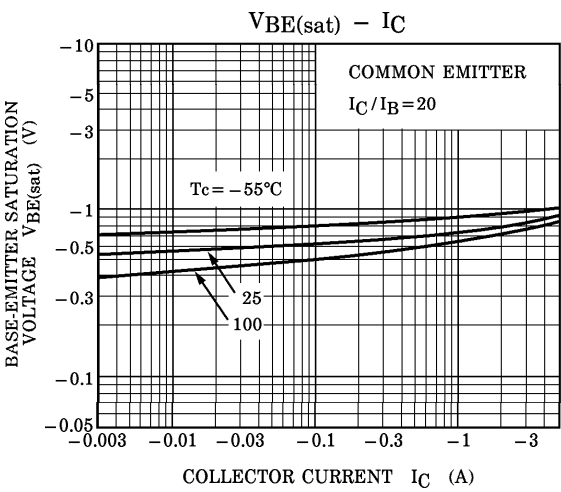
Weight : 1.9g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -100V, I_E = 0$	—	—	—1	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -7V, I_C = 0$	—	—	—1	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	—80	—	—	V
DC Current Gain		$h_{FE(1)}$ (Note)	$V_{CE} = -1V, I_C = -1A$	70	—	240	
		$h_{FE(2)}$	$V_{CE} = -1V, I_C = -3A$	30	—	—	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C = -3A, I_B = -0.15A$	—	—0.2	—0.4	V
	Base-Emitter	$V_{BE(sat)}$	$I_C = -3A, I_B = -0.15A$	—	—0.9	—1.2	
Transition Frequency		f_T	$V_{CE} = -4V, I_C = -1A$	—	60	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	200	—	pF
Switching Time	Turn-on Time	t_{on}	$20\mu s$ INPUT I_{B2} I_{B1} I_{C1} I_{C2} $V_{CC} \doteq -30V$ 10Ω $DUTY\ CYCLE \leq 1\%$	—	0.2	—	μs
	Storage Time	t_{stg}		—	1.0	—	
	Fall Time	t_f		—	0.1	—	

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





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