

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC3306

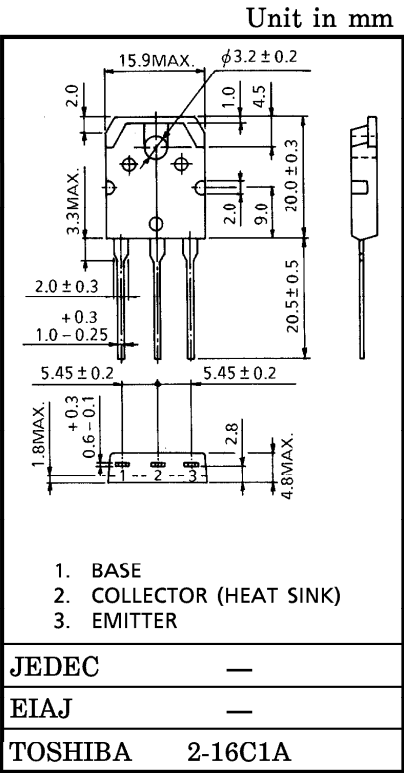
SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS.

HIGH SPEED DC-DC CONVERTER APPLICATIONS.

- Excellent Switching Times
: $t_r=1.0\mu s$ (Max.), $t_f=1.0\mu s$ (Max.) ($I_C=5A$)
- High Collector Breakdown Voltage : $V_{CEO}=400V$

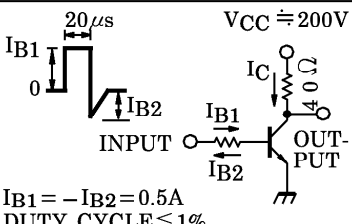
MAXIMUM RATINGS ($T_a=25^{\circ}C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	500	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	10	A
	Pulse	I_{CP}	15	
Base Current		I_B	5	A
Collector Power Dissipation ($T_c=25^{\circ}C$)		P_C	100	W
Junction Temperature		T_j	150	$^{\circ}C$
Storage Temperature Range		T_{stg}	$-55\sim 150$	$^{\circ}C$



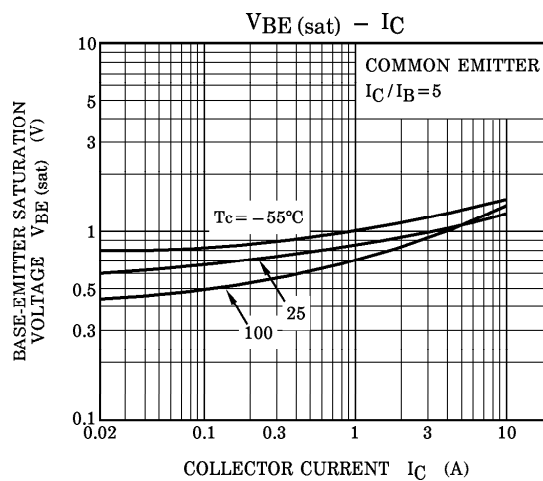
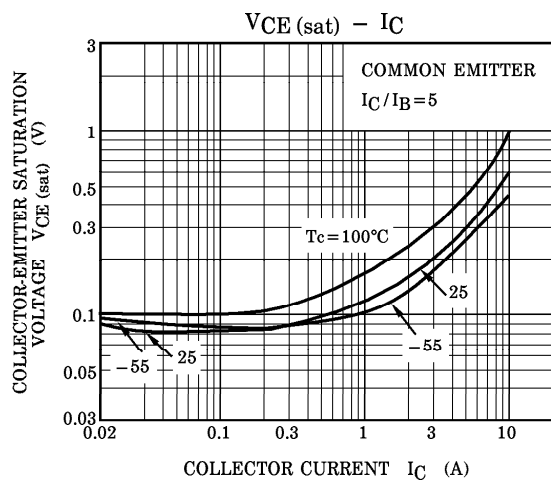
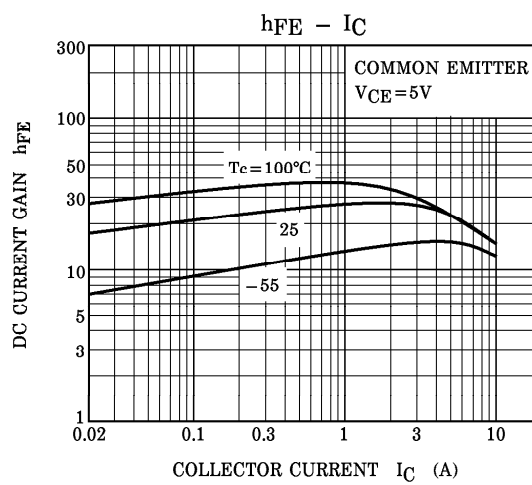
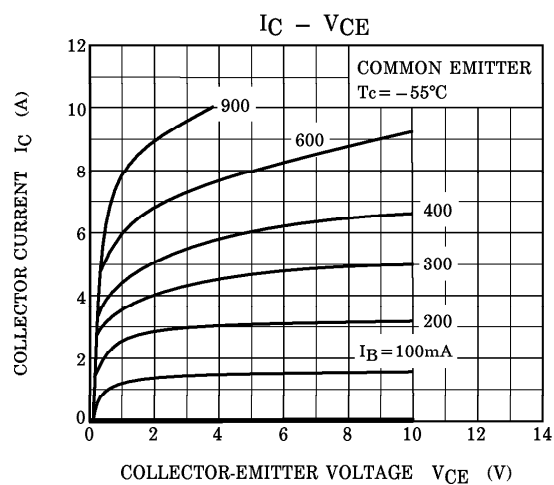
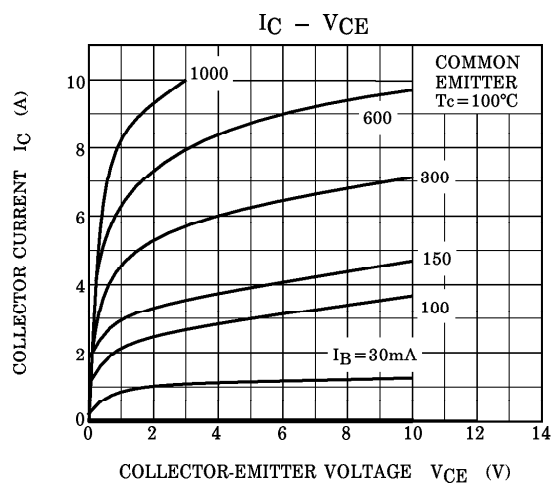
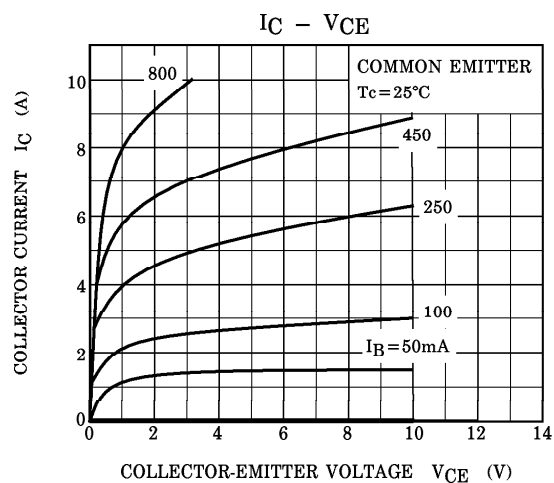
Weight : 4.7g

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=400V, I_E=0$	—	—	100	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=7V, I_C=0$	—	—	1	mA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	500	—	—	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400	—	—	V
DC Current Gain		h_{FE}	$V_C=5V, I_C=5A$	10	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$	—	—	1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=5A, I_B=0.5A$	—	—	2.0	V
Switching Time	Rise Time	t_r	 $V_{CC}=200V$ $I_C=5A$ $I_{B1}=-I_{B2}=0.5A$ DUTY CYCLE $\leq 1\%$	—	—	1.0	μs
	Storage Time	t_{stg}		—	—	2.5	
	Fall Time	t_f		—	—	1.0	

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