

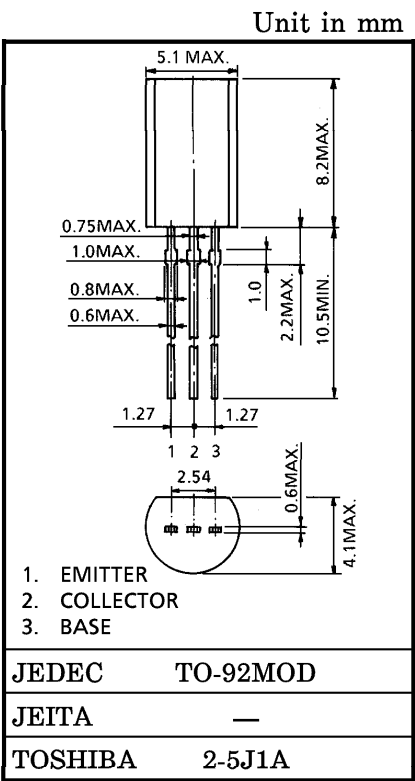
2SC4408

POWER AMPLIFIER APPLICATIONS
POWER SWITCHING APPLICATIONS

- Low Collector Saturation Voltage : $V_{CE(sat)}=0.5V$ (Max.)
- High Collector Power Dissipation : $P_C=900mW$ ($T_a=25^{\circ}C$)
- High Speed Switching Time : $t_{stg}=500ns$ (Typ.)
- Complementary to 2SA1680

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

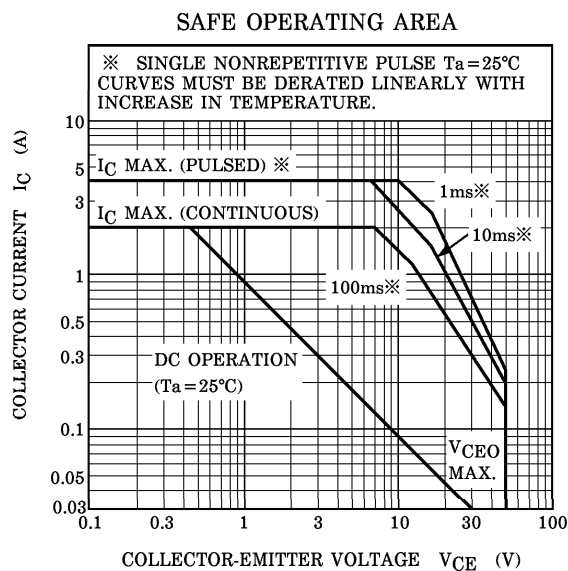
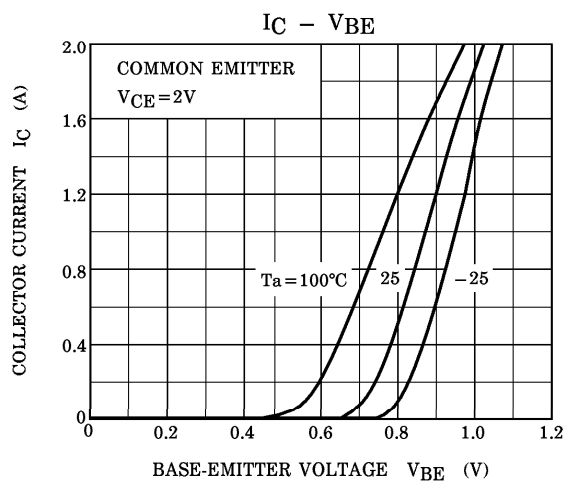
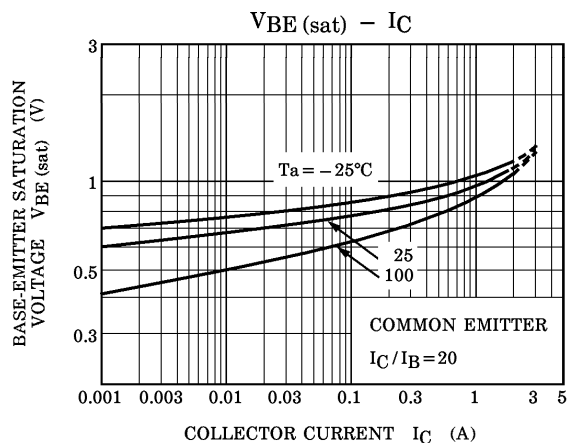
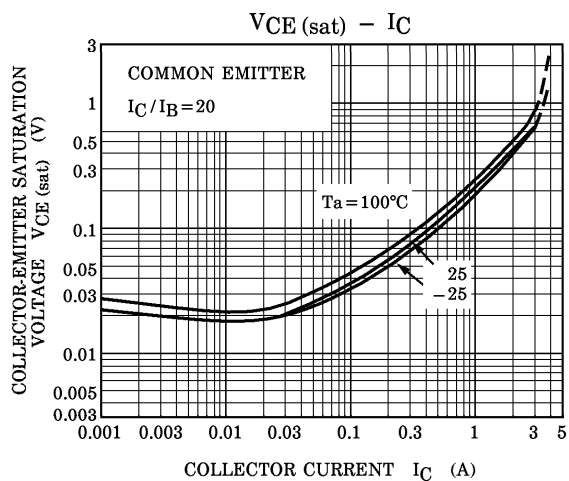
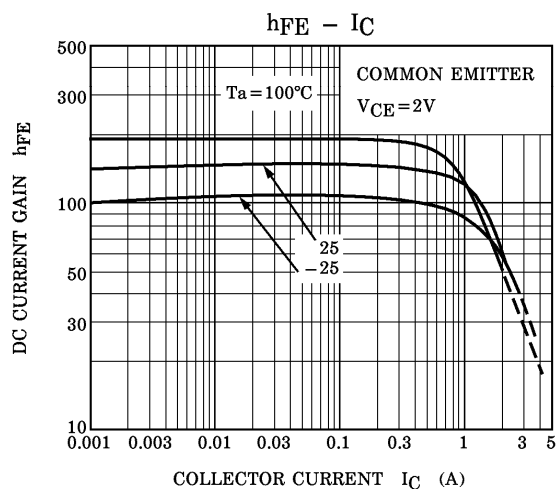
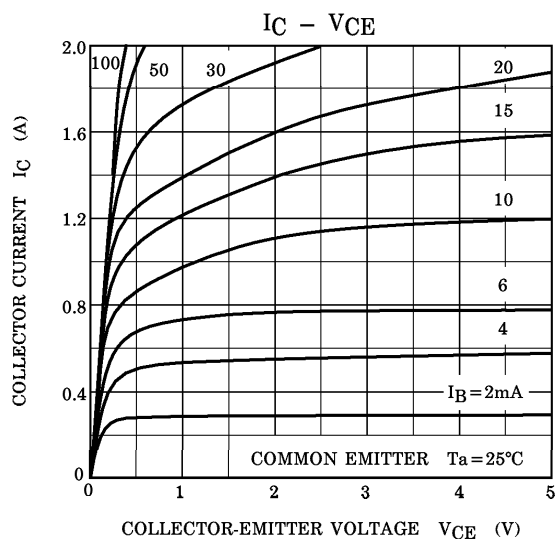
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	2	A
Base Current	I_B	0.2	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	$-55\sim150$	$^{\circ}C$



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

Weight : 0.36g (Typ.)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=80V, I_E=0$	—	—	1.0	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=6V, I_C=0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage		$V(BR)_{CEO}$	$I_C=10mA, I_B=0$	50	—	—	V
DC Current Gain	$h_{FE}(1)$		$V_{CE}=2V, I_C=100mA$	120	—	400	
	$h_{FE}(2)$		$V_{CE}=2V, I_C=1.5A$	40	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=1A, I_B=0.05A$	—	—	0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=1A, I_B=0.05A$	—	—	1.2	V
Transition Frequency		f_T	$V_{CE}=2V, I_C=100mA$	—	100	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	14	—	pF
Switching Time	Turn-on Time	t_{on}	$I_{B1} = -I_{B2} = 0.05A$, DUTY CYCLE $\leq 1\%$ $V_{CC} \doteq 30V$	—	0.1	—	μs
	Storage Time	t_{stg}		—	0.5	—	
	Fall Time	t_f		—	0.1	—	



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