

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

2SC3225

SWITCHING APPLICATIONS.

SOLENOID DRIVE APPLICATIONS.

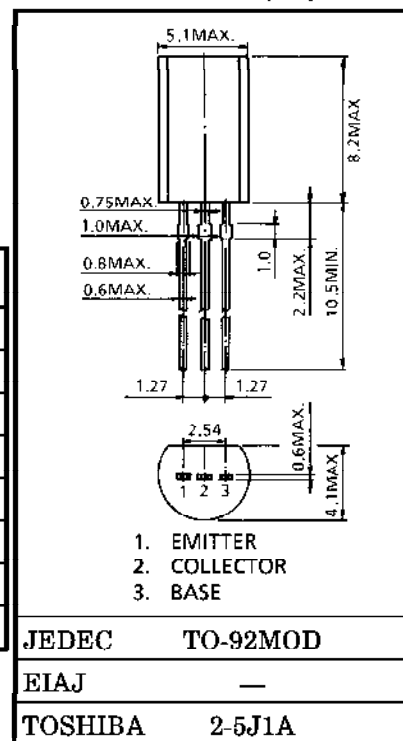
INDUSTRIAL APPLICATIONS

Unit in mm

- High DC Current Gain : $h_{FE}=500$ (Min.) ($I_C=400mA$)
- Low Saturation Voltage : $V_{CE(sat)}=0.5V$ (Max.) ($I_C=300mA$)

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

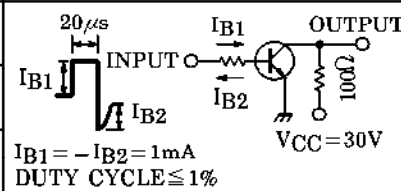
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	2	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



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

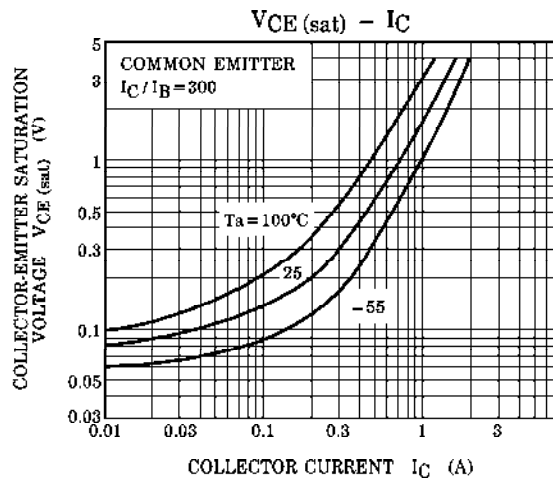
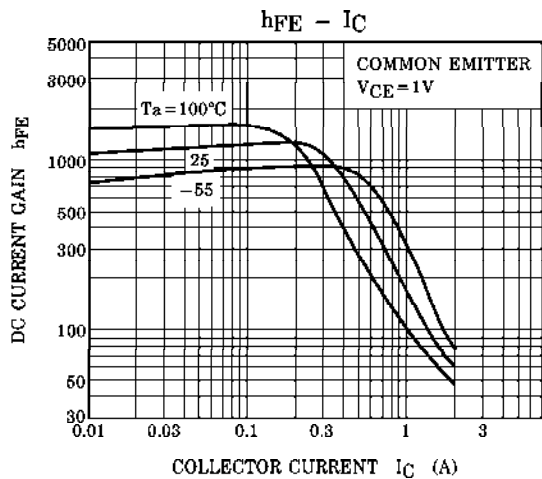
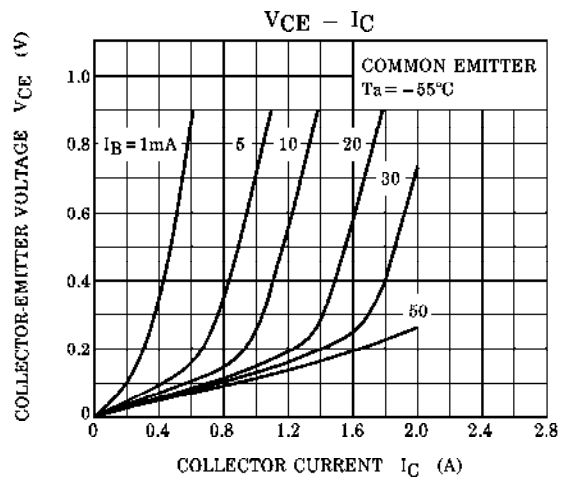
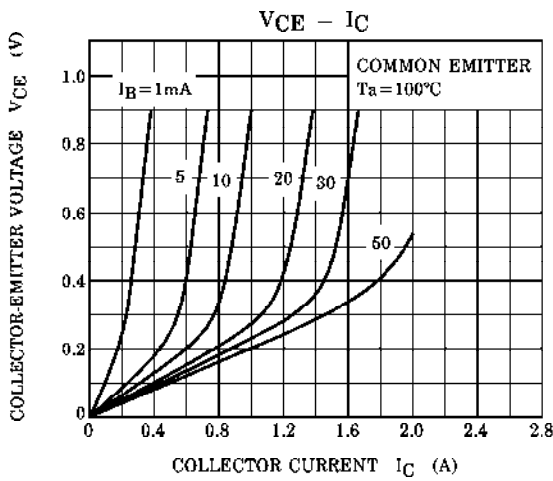
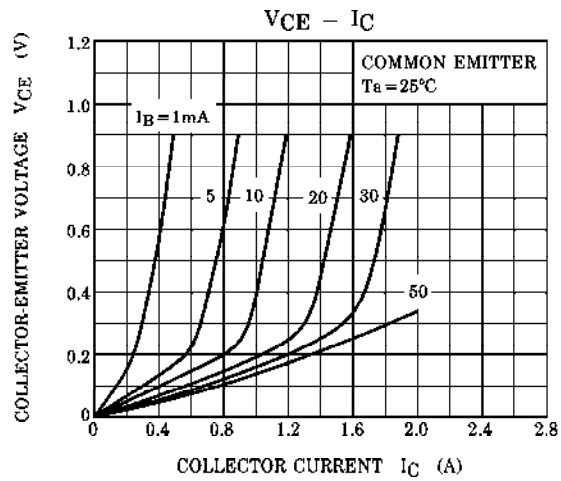
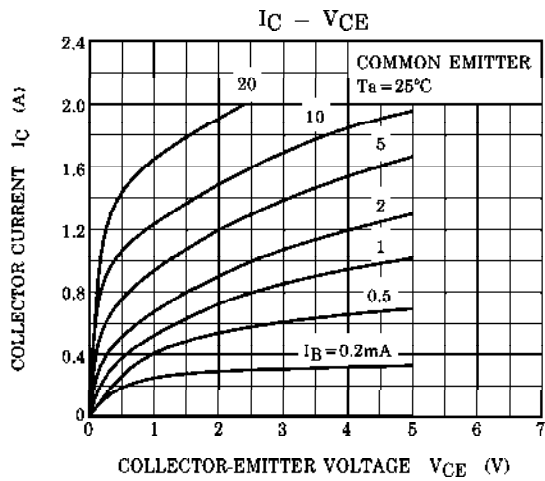
Weight : 0.36g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=40V, I_E=0$	—	—	100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=7V, I_C=0$	—	—	1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	40	—	—	V
DC Current Gain	h_{FE}	$V_{CE}=1V, I_C=400mA$	500	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300mA, I_B=1mA$	—	0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=300mA, I_B=1mA$	—	—	1.1	V
Transition Frequency	f_T	$V_{CE}=2V, I_C=100mA$	—	220	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	20	—	pF
Switching Time	Trun-On Time	t_{on}	—	1.0	—	μs
	Storage Time	t_{stg}	—	3.0	—	
	Fall Time	t_f	—	1.2	—	



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