

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07768 D T-33-35

SILICON NPN TRIPLE DIFFUSED MESA TYPE
(DARLINGTON POWER)**2SD698**

INDUSTRIAL APPLICATIONS

Unit in mm

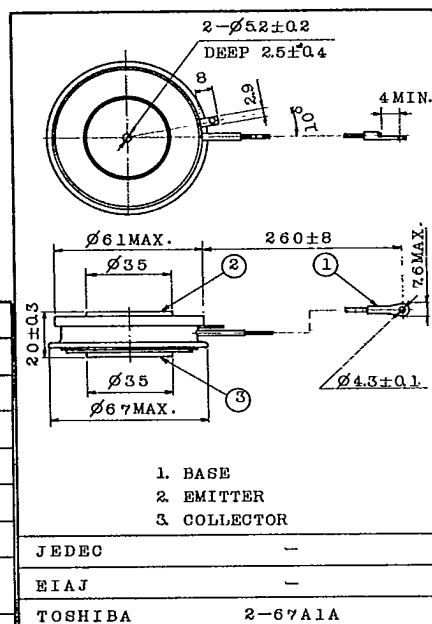
HIGH POWER SWITCHING APPLICATION.
DC MOTOR CONTROL APPLICATION.
ELECTRIC CAR APPLICATION.

FEATURES:

- High Voltage : $V_{CE(SUS)} > 200V$
- Triple Diffused Design.
- Darlington Design.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	200	V
Collector-Emitter Voltage	$V_{CE(SUS)}$	200	V
Emitter-Base Voltage	V_{EB0}	4	V
Collector Current	I_C	600	A
Emitter Current	I_E	-600	A
Base Current	I_B	12	A
Thermal Resistance (Double Side Cooling)	$R_{th(j-c)}$	0.04	$^\circ C/W$
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-40~150	$^\circ C$
Mounting Force Required	F	1000 $\pm$ 100	kg



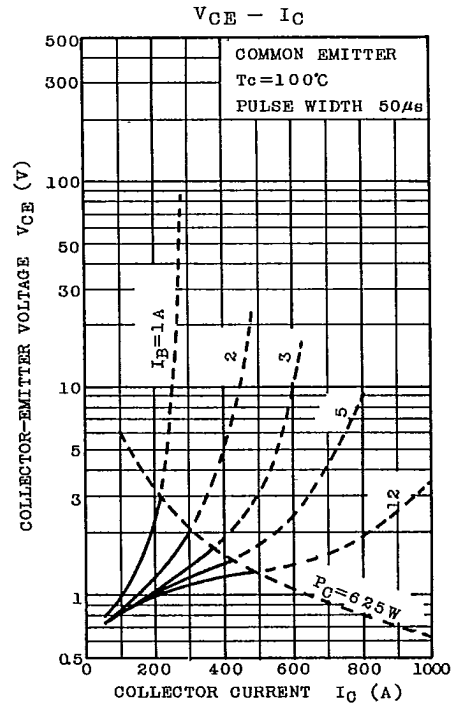
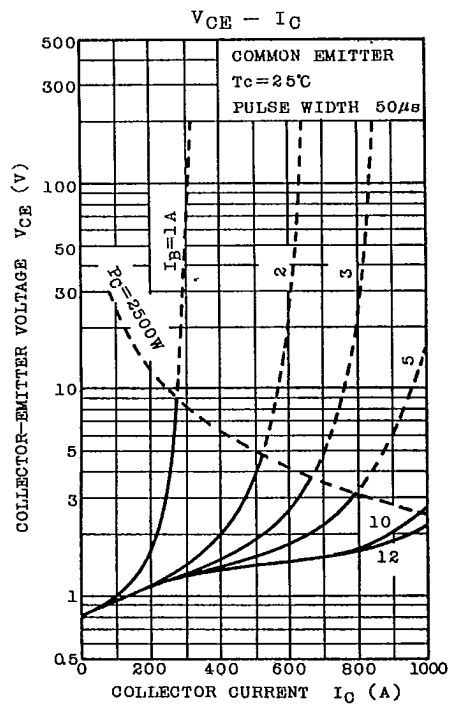
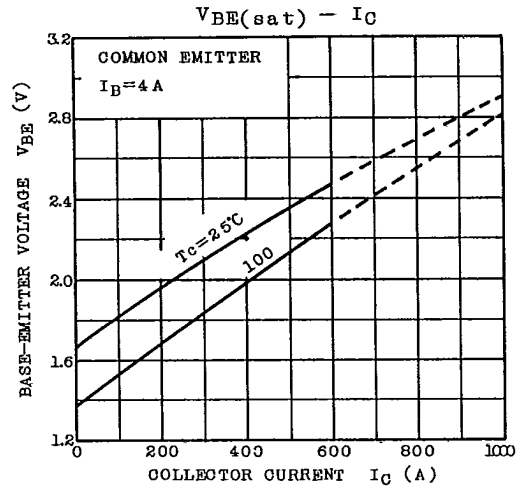
Weight : 250g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=600A$	150	400	—	
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=0.5A, L=40mH$	200	—	—	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=600A, I_B=8A$ (Note)	—	—	2.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		—	—	2.5	V
Collector Cut-off Current	I_{CEO}	$V_{CE}=200V, I_B=0$	—	1.0	10	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4V, I_C=0$	—	50	250	mA
Switching Time	Turn on Time	$I_C=600A, I_{B1}=4A, -I_{B2}=4A, V_C=100V$	—	2.0	—	μs
	Storage Time		—	8	—	μs
	Fall Time		—	3	—	μs

Note : Pulse Test; Pulse Width $\leq 300\mu s$ Duty Cycle $\leq 3\%$
Mounting Force; $F=1000kg$

TOSHIBA CORPORATION

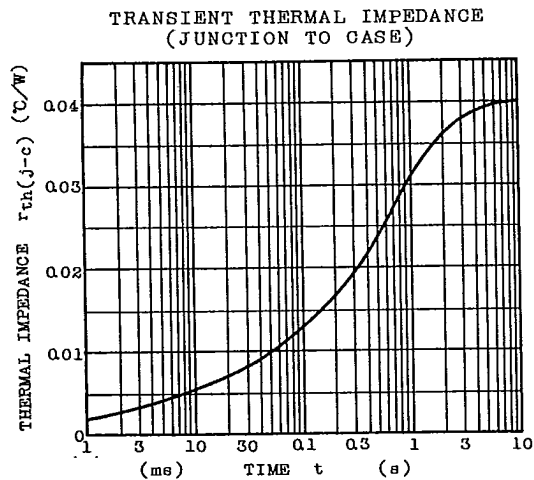
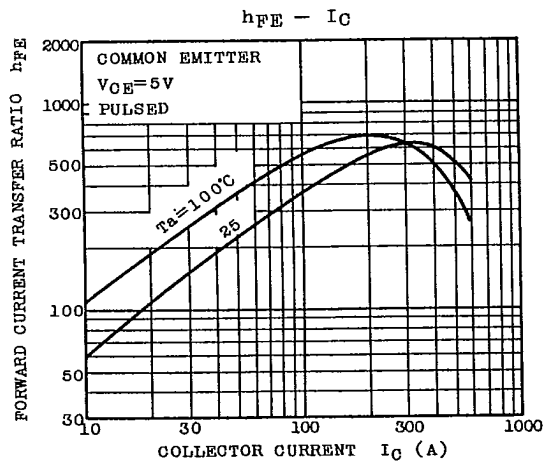
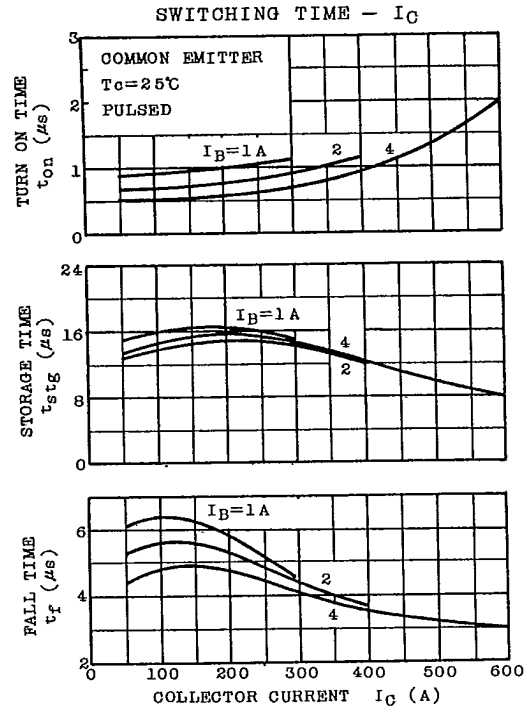
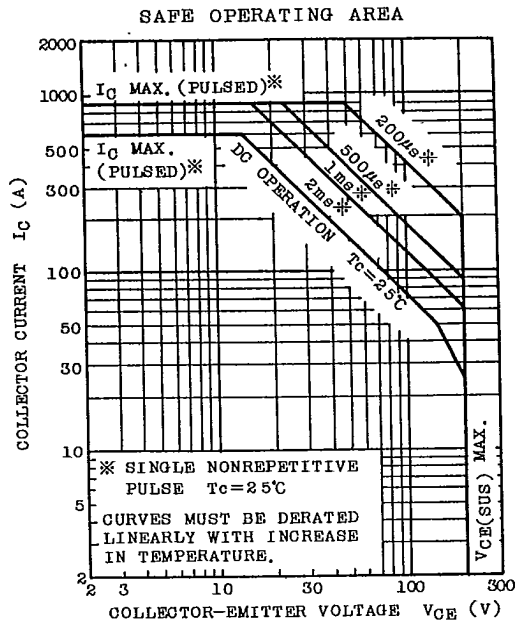
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