

2SC2650

SILICON NPN TRIPLE DIFFUSED TYPE

SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS.

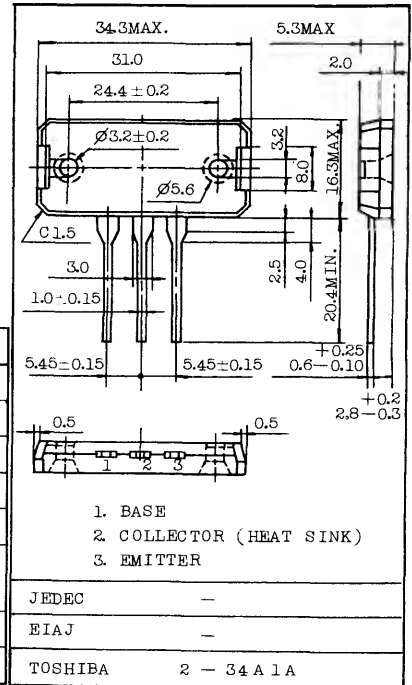
HIGH SPEED DC-DC CONVERTER APPLICATIONS.

FEATURES:

- 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	I_C	10	A
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}	$-55\sim 150$	$^\circ C$

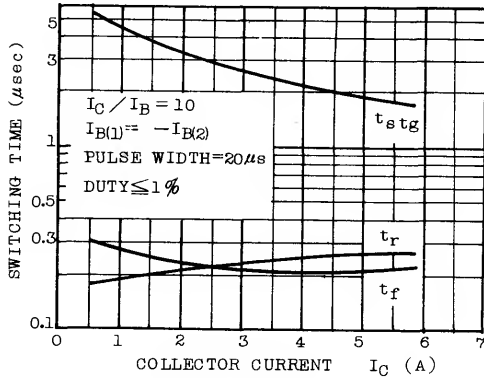


Weight : 10.8g

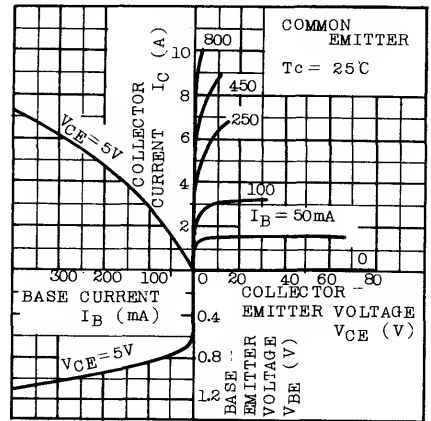
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

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
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	7	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=5V, I_C=5A$	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		-	-	1.0	μs
	Storage Time	t_{stg}		-	-	2.5	
	Fall Time	t_f		-	-	1.0	

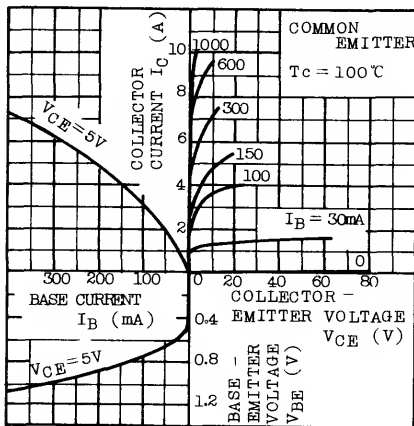
SWITCHING CHARACTERISTICS



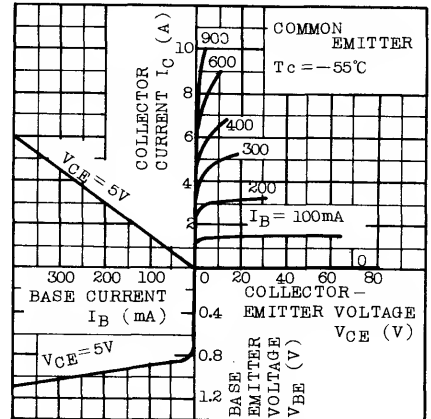
STATIC CHARACTERISTICS



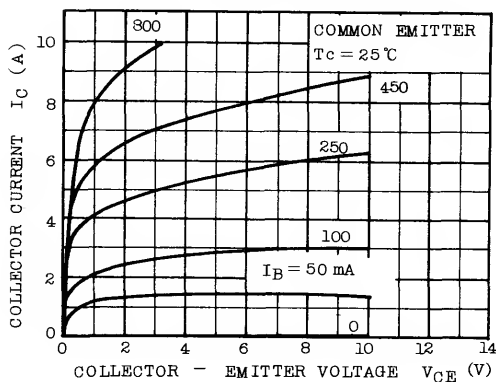
STATIC CHARACTERISTICS



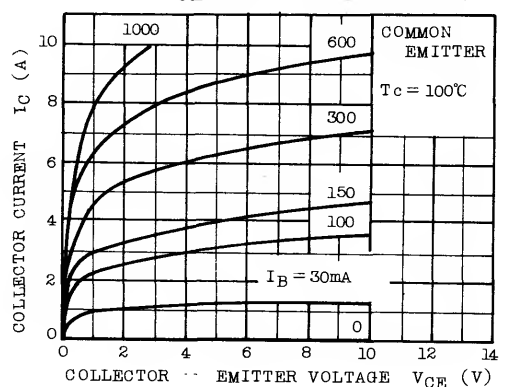
STATIC CHARACTERISTICS



$I_C - V_{CE}$ (LOW VOLTAGE REGION)

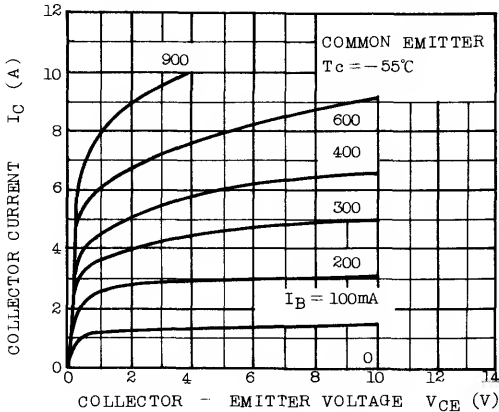


$I_C - V_{CE}$ (LOW VOLTAGE REGION)

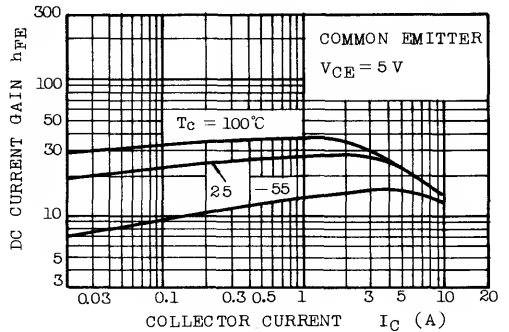


2SC2650

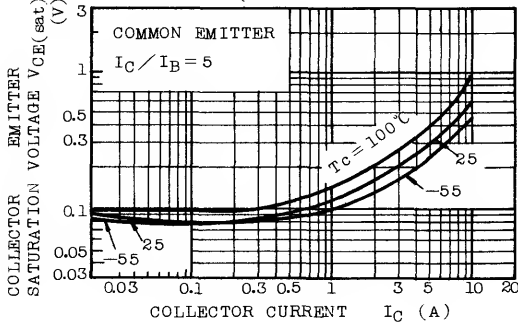
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



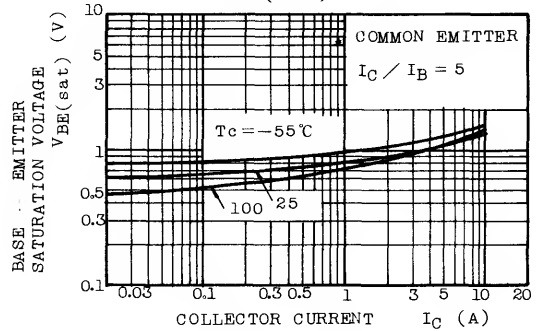
$h_{FE} - I_C$



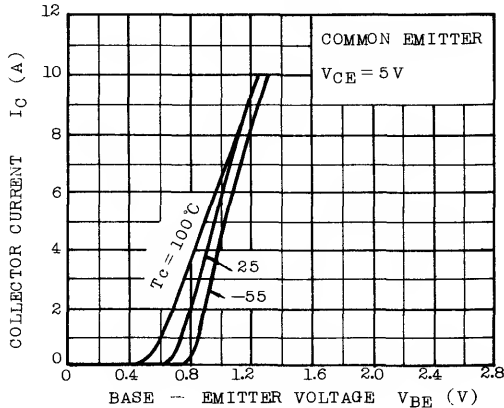
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



SAFE OPERATING AREA

