

9097250 TOSHIBA (DISCRETE/OPTO)

56C 08010 07-33-13

SILICON NPN TRIPLE DIFFUSED TYPE

2N3055

GENERAL PURPOSE POWER TRANSISTOR.

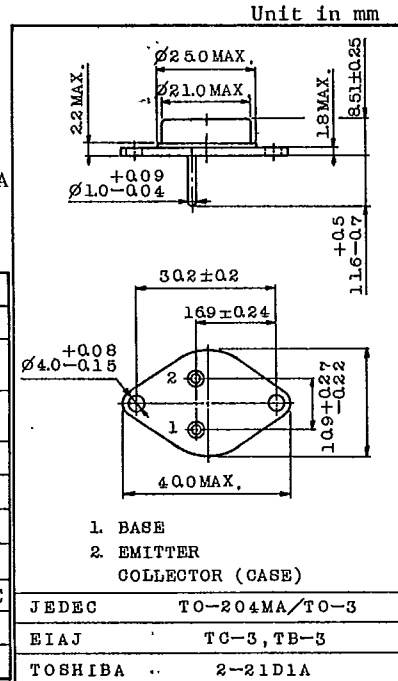
POWER REGULATOR, SWITCHING AND SOLLENOID DRIVES APPLICATIONS.

FEATURES:

- . High Gain at High Current
- . Low Saturation Voltage :  $V_{CE(sat)} < 1.1V$ , @  $I_C=4A, I_B=0.4A$
- . Excellent Area of Safe Operatings

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
* Collector-Base Voltage	$V_{CB0}$	100	V
* Collector-Emitter Sustaining Voltage ( $R_{BE}=100 \Omega$ )	$V_{CER(SUS)}$	70	V
* Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	60	V
* Emitter-Base Voltage	$V_{EB0}$	7	V
* Collector Current	$I_C$	15	A
* Base Current	$I_B$	7	A
* Collector Power Dissipation ( $T_c=25^\circ C$ ) Derate Linearly	$P_C$	115	W
		0.66	W / $^\circ C$
* Junction Temperature	$T_j$	200	$^\circ C$
* Storage Temperature Range	$T_{stg}$	-65 ~ 200	$^\circ C$



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

Weight : 12.6g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
* Collector Cut-off Current	$I_{CEX}$	$V_{CE}=100V, V_{BE}=-1.5V$	-	-	5	mA
* Collector Cut-off Current	$I_{CEX}$	$V_{CE}=100V, V_{BE}=-1.5V, T_c=150^\circ C$	-	-	30	mA
* Collector Cut-off Current	$I_{CEO}$	$V_{CE}=30V, I_B=0$	-	-	0.7	mA
* Emitter Cut-off Current	$I_{EB0}$	$V_{EB}=7V, I_C=0$	-	-	5	mA
* Collector-Emitter Sustaining Voltage	$V_{CER(SUS)}^{**}$	$I_C=0.2A, R_{BE}=100 \Omega$	70	-	-	V
* Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}^{**}$	$I_C=0.2A, I_B=0$	60	-	-	V
* DC Current Gain	$h_{FE}$	$V_{CE}=4V, I_C=4A$	20	-	70	
		$V_{CE}=4V, I_C=10A$	5	-	-	
* Base-Emitter Voltage	$V_{BE}$	$V_{CE}=4V, I_C=4A$	-	-	1.8	V
* Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.4A$	-	-	1.1	V
		$I_C=10A, I_B=3.3A$	-	-	8	V
* Small Signal Current Gain Cut-off Frequency	$f_{hfe}$	$V_{CE}=4V, I_C=1A, f=10kHz$	20	-	-	kHz
* Small Signal Current Gain	$ h_{fe}' $	$V_{CE}=4V, I_C=1A, f=1MHz$	2.5	-	-	
* Second Breakdown Collector Current (Base Forward Bias)	$I_s/h$	$V_{CE}=40V, t=1s$ (non repetitive)	2.87	-	-	A

\* In Accordance With JEDEC Registration Data.

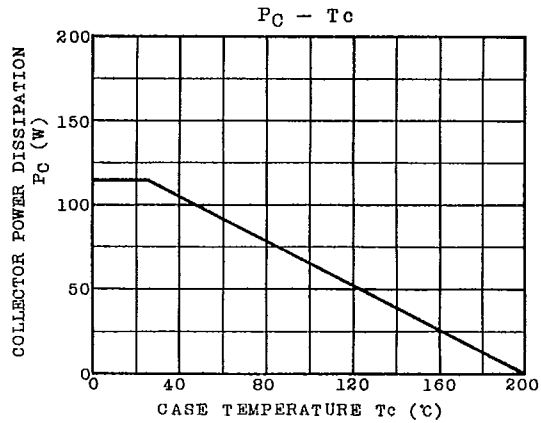
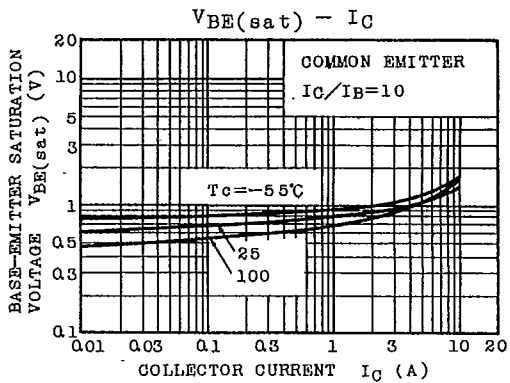
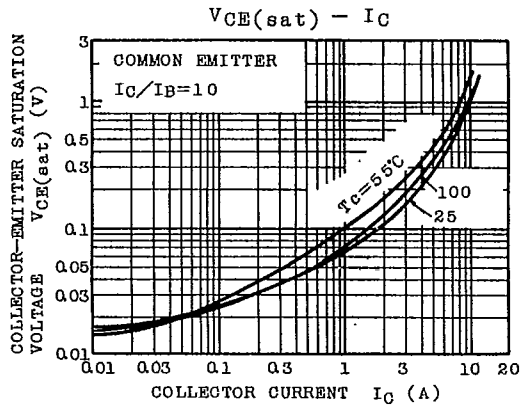
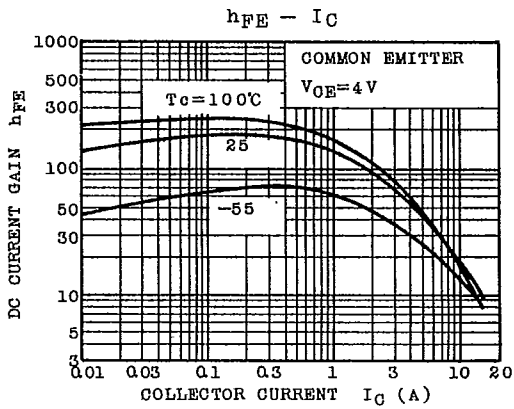
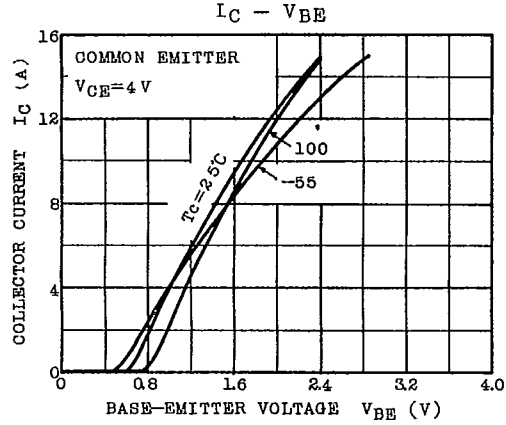
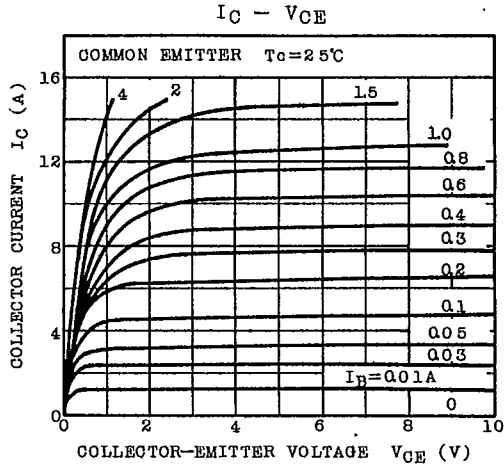
\*\* The sustaining voltages  $V_{CER(SUS)}$  and  $V_{CEO(SUS)}$  MUST NOT be measured on a curve tracer.

TOSHIBA CORPORATION

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