

SWITCHING REGULATOR AND HIGH VOLTAGE.  
 SWITCHING APPLICATIONS.  
 HIGH SPEED DC-DC CONVERTER APPLICATION.

**FEATURES:**

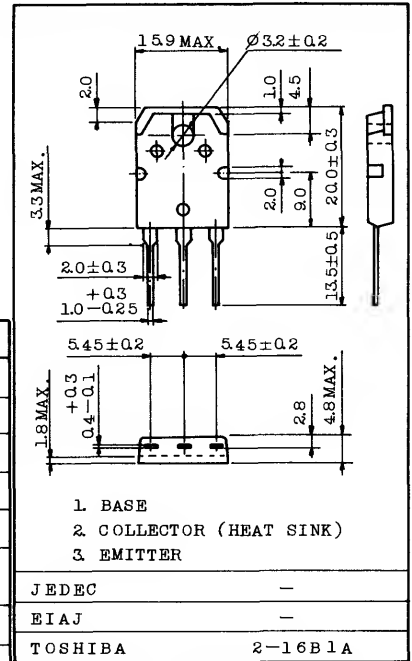
- Excellent Switching Times ( $I_C=0.5A$ )  
 $t_r=1.0\mu s$  Max.  $t_f=10.\mu s$  Max.
- High Collector Breakdown Voltage :  $V_{CEO}=800V$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	850	V
Collector-Emitter Voltage	$V_{CEO}$	800	V
Emitter-Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	2	A
Base Current	$I_B$	1	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	80	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ 150	$^\circ C$

**INDUSTRIAL APPLICATIONS**

Unit in mm



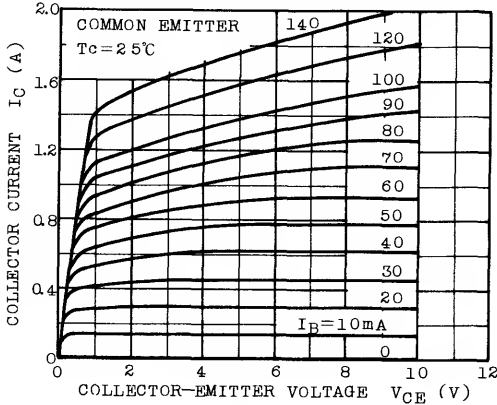
Weight : 4.6g

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

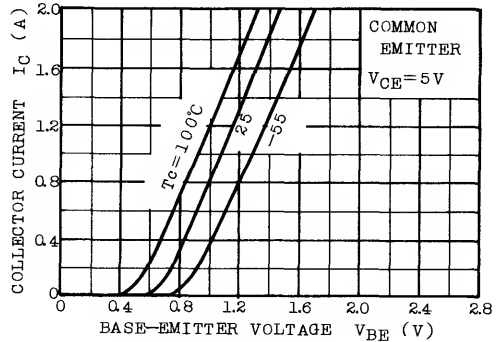
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cutoff Current		$I_{CBO}$	$V_{CB}=800V, I_E=0$	-	-	100	$\mu A$
Emitter Cutoff Current		$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	1	mA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	850	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	800	-	-	V
D C Current Gain (Note)		$h_{FE}$	$V_{CE}=5V, I_C=0.5A$	10	-	-	
Collector-Emitter Saturation Voltage (Note)		$V_{CE(sat)}$	$I_C=0.5A, I_B=0.05A$	-	-	1.0	V
Base-Emitter Saturation Voltage (Note)		$V_{BE(sat)}$	$I_C=0.5A, I_B=0.05A$	-	-	1.5	V
Switching Time	Rise Time	$t_r$	<p><math>V_{CC}=400V</math>  <math>I_C=0.5A</math>  <math>I_{B1}=0.05A</math>  <math>I_{B2}=0.05A</math>  <math>2I_{B1}=-I_{B2}=0.1A</math>  <math>DUTY\ CYCLE \leq 1\%</math></p>	-	-	1.0	$\mu s$
	Storage Time	$t_{stg}$		-	-	4.0	
	Fall Time	$t_f$		-	-	1.0	

Note ; Pulse Test : Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$

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

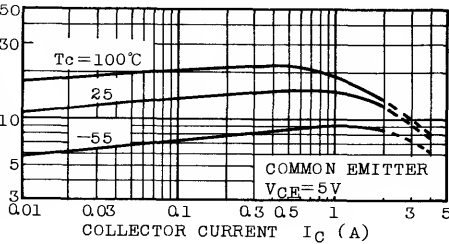


$V_{BE} - I_C$

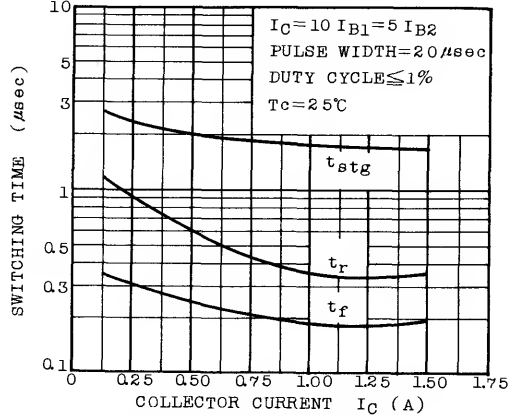


STATIC FORWARD CURRENT TRANSFER RATIO  $h_{FE}$

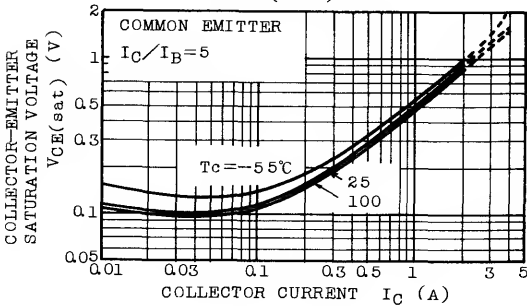
$h_{FE} - I_C$



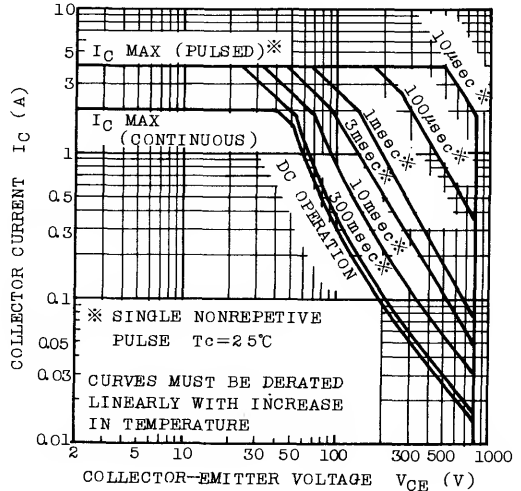
SWITCHING TIME -  $I_C$



$V_{CE(sat)} - I_C$



SAFE OPERATING AREA



$V_{BE(sat)} - I_C$

