

HIGH POWER SWITCHING APPLICATIONS
DC-DC CONVERTER AND DC-AC INVERTER APPLICATIONS

FEATURES:

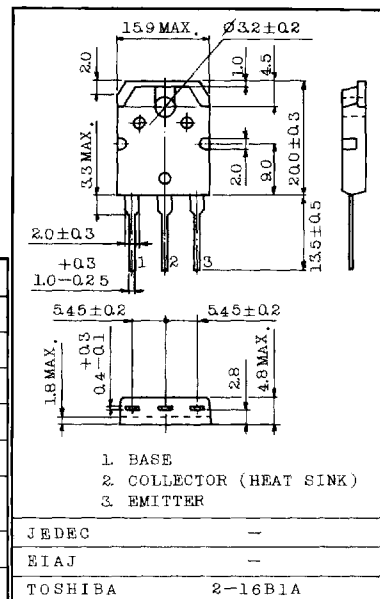
- Low Collector-Emitter Saturation Voltage
: $V_{CE(sat)}=0.5V$ (Max.) ($I_C=6A$)
- High Collector Power Dissipation: $P_C=80W$ ($T_c=25^\circ C$)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	10	A
Base Current	I_B	2	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	80	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ C$

INDUSTRIAL APPLICATIONS

Unit in mm



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

Weight : 4.6g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cutoff Current	I_{CBO}	$V_{CB}=100V, I_E=0$	-	-	10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	10	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	80	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=1V, I_C=1A$	70	-	240	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=6A$	30	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6A, I_B=0.3A$	-	0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=6A, I_B=0.3A$	-	0.9	1.4	V
Transition Frequency	f_T	$V_{CE}=4V, I_C=1A$	-	10	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	350	-	pF
Switching Time	Turn-on Time	t_{on}	-	0.5	-	μs
	Storage Time	t_{stg}	-	2.5	-	
	Fall Time	t_f	-	0.8	-	

Note: $h_{FE(1)}$ Classification 0 : 70 ~ 140, Y : 120 ~ 240

