

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD1410A

IGNITER APPLICATIONS

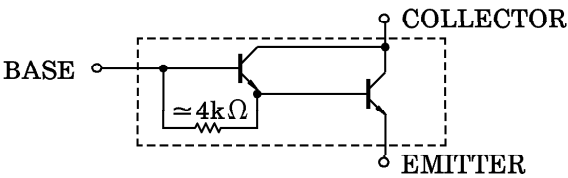
HIGH VOLTAGE SWITCHING APPLICATIONS

- High DC Current Gain : $h_{FE}=2000$ (Min.) ($V_{CE}=2V$, $I_C=2A$)

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

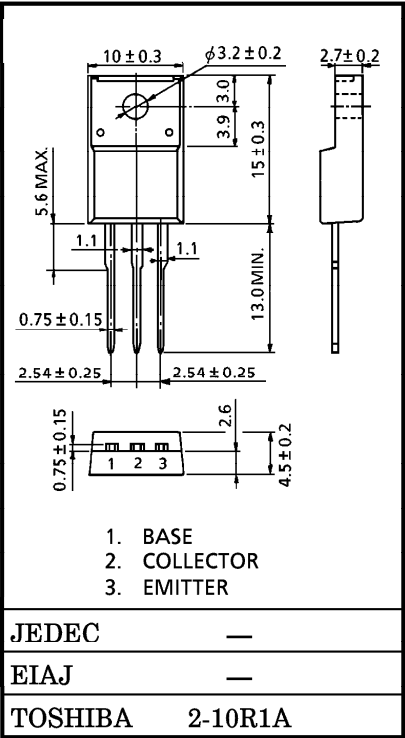
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	250	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	6	A
Base Current	I_B	1	A
Collector Power	P_C	2.0	W
Dissipation ($T_c=25^{\circ}C$)		25	
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	$-55\sim150$	$^{\circ}C$

EQUIVALENT CIRCUIT



INDUSTRIAL APPLICATIONS

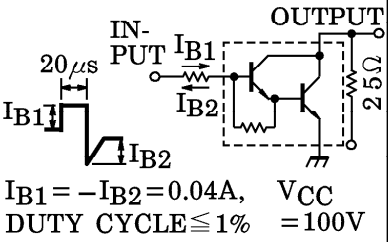
Unit in mm



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	V _{CB} = 300V, I _E = 0	—	—	0.5	mA
Emitter Cut-off Current		IEBO	V _{EB} = 5V, I _C = 0	—	—	0.5	mA
Collector-Emitter Breakdown Voltage		V _(BR) CEO	I _C = 0.5A, L = 40mH	250	—	—	V
DC Current Gain		h _{FE} (1)	V _{CE} = 2V, I _C = 2A	2000	—	—	
		h _{FE} (2)	V _{CE} = 2V, I _C = 4A	200	—	—	
Collector-Emitter Saturation Voltage		V _{CE} (sat)	I _C = 4A, I _B = 0.04A	—	—	2.0	V
Base-Emitter Saturation Voltage		V _{BE} (sat)	I _C = 4A, I _B = 0.04A	—	—	2.5	V
Collector Output Capacitance		C _{ob}	V _{CB} = 50V, I _E = 0, f = 1MHz	—	30	—	pF
Switching Time	Turn-on Time	t _{on}	 I _{B1} = -I _{B2} = 0.04A, V _{CC} = 100V DUTY CYCLE ≤ 1%	—	0.2	—	μs
	Storage Time	t _{stg}		—	1.0	—	
	Fall Time	t _f		—	0.2	—	

