

TOSHIBA

2SA1822

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

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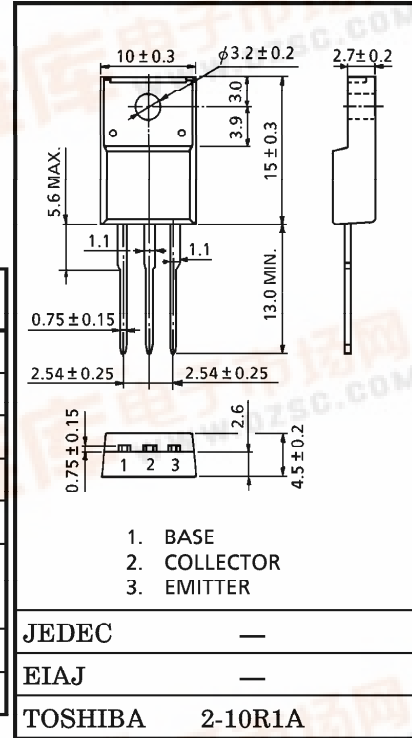
HIGH VOLTAGE SWITCHING APPLICATIONS
HIGH SPEED DC-DC CONVERTER APPLICATION

Unit in mm

- Excellent Switching Times
 $t_{on} = 1.0\mu s$ (Max.), $t_f = 1.0\mu s$ (Max.) at $I_C = -0.3A$
- High Collector Breakdown Voltage : $V_{CEO} = -400V$

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

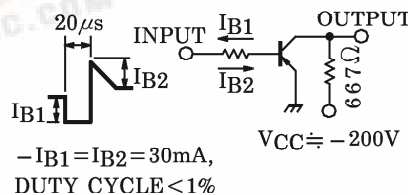
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-7	V
Collector Current	I_C	-1	A
Base Current	I_B	-0.5	A
Collector Power Dissipation	P_C	$T_a = 25^\circ C$	2.0
		$T_c = 25^\circ C$	25
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 1.7g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -400V, I_E = 0$	—	—	-1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -7V, I_C = 0$	—	—	-1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-400	—	—	V
DC Current Gain	h_{FE}	$V_{CE} = -5V, I_C = -0.3A$	30	—	100	V
		$V_{CE} = -5V, I_C = -0.5A$	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -0.3A, I_B = -30mA$	—	-0.25	-1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -0.3A, I_B = -30mA$	—	-0.75	-1.2	V
Switching Time	Rise Time	t_{on}	—	—	1.0	μs
	Storage Time	t_{stg}	—	—	5.0	
	Fall Time	t_f	—	—	1.0	



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TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.



