

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SC5356

SWITCHING REGULATOR APPLICATIONS

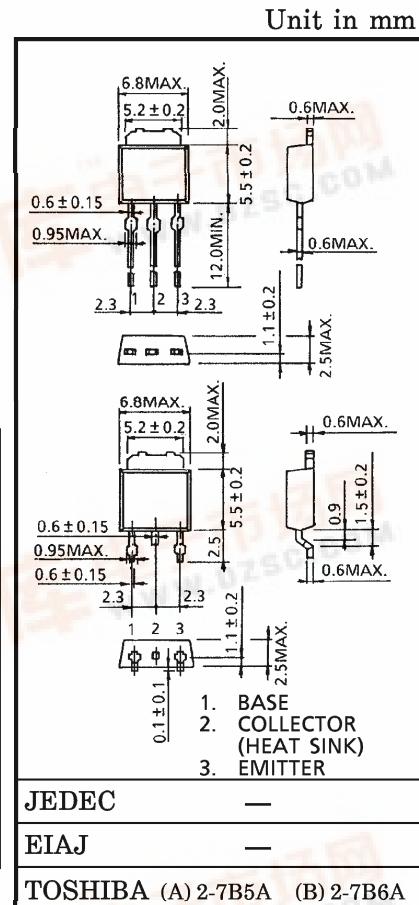
HIGH VOLTAGE SWITCHING APPLICATIONS

DC-DC CONVERTER APPLICATIONS

- Excellent Switching Times : $t_f = 0.5 \mu\text{s}$ (Max.) ($I_C = 1.2 \text{ A}$)
- High Collectors Breakdown Voltage : $V_{CEO} = 800 \text{ V}$
- High DC Current Gain : $h_{FE} = 15$ (Min.) ($I_C = 0.15 \text{ A}$)

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

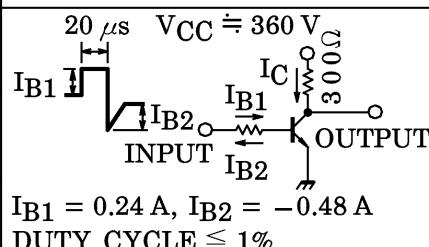
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	900	V
Collector-Emitter Voltage		V_{CEO}	800	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	3	A
	Pulse	I_{CP}	5	
Base Current		I_B	1	A
Collector Power	$T_a = 25^\circ\text{C}$	PC	1.5	W
Dissipation	$T_c = 25^\circ\text{C}$		25	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} = 720 V, I _E = 0	—	—	100	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 7 V, I _C = 0	—	—	10	μA
Collector-Base Breakdown Voltage	V _{(BR) CBO}	I _C = 1 mA, I _B = 0	900	—	—	V
Collector-Emitter Breakdown Voltage	V _{(BR) CEO}	I _C = 10 mA, I _B = 0	800	—	—	V
DC Current Gain	h _{FE} (1)	V _{CE} = 5 V, I _C = 1 mA	10	—	—	
	h _{FE} (2)	V _{CE} = 5 V, I _C = 0.15 A	15	—	—	
Collector-Emitter Saturation Voltage	V _{CE (sat)}	I _C = 1.2 A, I _B = 0.24 A	—	—	1.0	V
Base-Emitter Saturation Voltage	V _{BE (sat)}	I _C = 1.2 A, I _B = 0.24 A	—	—	1.3	V
Switching Time	Rise Time	t _r			—	0.7
	Storage Time	t _{stg}			—	4.0
	Fall Time	t _f			—	0.5

