

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1934

(2SA1934)

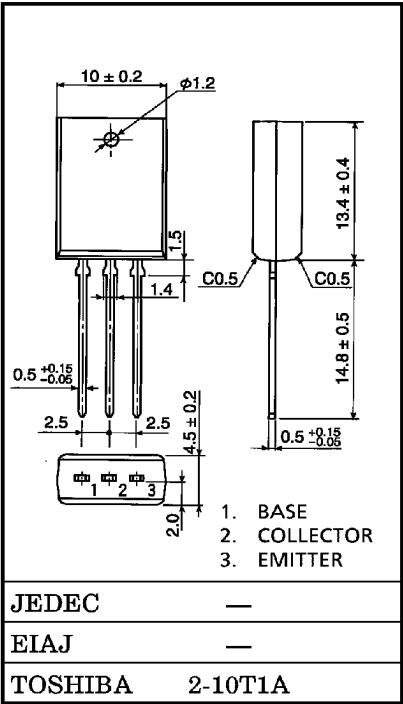
HIGH CURRENT SWITCHING APPLICATIONS
DC-DC CONVERTER APPLICATIONS

- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.4V$ (Max.) at $I_C = -3A$
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SC5176

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-80	V
Emitter-Base Voltage		V_{EBO}	-7	V
Collector Current	DC	I_C	-5	A
	Pulse	I_{CP}	-8	
Collector Power Dissipation		P_C	1.8	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

Unit in mm

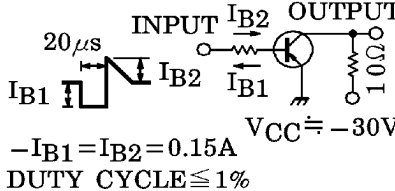


Weight : 1.5g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	V _{CB} = −100V, I _E = 0	—	—	−1	μA
Emitter Cut-off Current		IEBO	V _{EB} = −7V, I _C = 0	—	—	−1	μA
Collector-Emitter Breakdown Voltage		V (BR) CEO	I _C = −10mA, I _B = 0	−80	—	—	V
DC Current Gain		hFE (1) (Note)	V _{CE} = −1V, I _C = −1A	70	—	240	
		hFE (2)	V _{CE} = −1V, I _C = −3A	40	—	—	
Saturation Voltage	Collector-Emitter	V _{CE} (sat)	I _C = −3A, I _B = −0.15A	—	−0.2	−0.4	V
	Base-Emitter	V _{BE} (sat)	I _C = −3A, I _B = −0.15A	—	−0.9	−1.2	
Transition Frequency		f _T	V _{CE} = −4V, I _C = −1A	—	60	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = −10V, I _E = 0, f = 1MHz	—	200	—	pF
Switching Time	Turn-on Time	t _{on}	 20μs INPUT I_{B2} OUTPUT I_{B1} I_{B2} I_{B1} 10Ω V_{CC} = −30V −I_{B1} = I_{B2} = 0.15A DUTY CYCLE ≤ 1%	—	0.2	—	μs
	Storage Time	t _{stg}		—	1.0	—	
	Fall Time	t _f		—	0.1	—	

Note : hFE (1) Classification O : 70~140, Y : 120~240

