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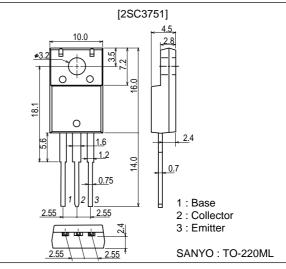
800V / 1.5A Switching Regulator Applications

Features

- · High breakdown voltage and high reliability.
- Fast switching speed.
- Wide ASO.
- Adoption of MBIT process.
- Micaless package facilitating mounting.

Package Dimensions

unit : mm 2041A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		1100	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	VEBO		7	V
Collector Current	IC		1.5	А
Collector Current (Pulse)	ICP	PW≤300µs, Duty Cycle≤10%	5	А
Base Current	IB		0.8	А
Collector Dissipation	PC	Tc=25°C	25	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Collector Cutoff Current	ICBO	V _{CB} =800V, I _E =0			10	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =5V, I _C =0			10	μΑ

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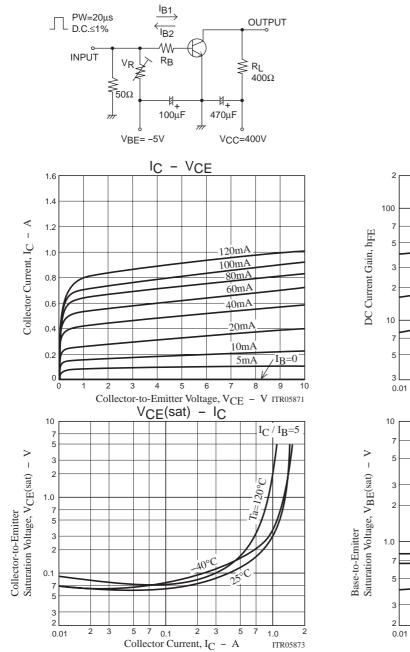
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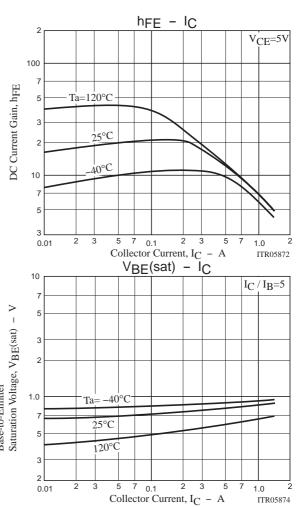
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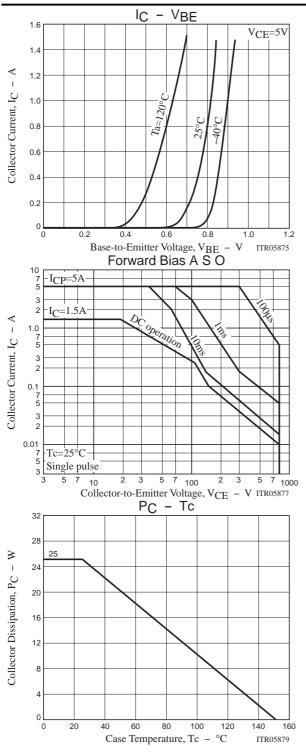
Parameter	Symbol	Conditions	Ratings			Linit	
Farameter	Symbol	Conditions	min	typ	max	Unit	
DC Current Gain	hFE1	V _{CE} =5V, I _C =0.1A	10*		40*		
DC Current Gain	hFE2	V _{CE} =5V, I _C =0.5A	8				
Gain-Bandwidth Product	fT	VCE=10V, IC=0.1A		15		MHz	
Output Capacitance	Cob	V _{CB} =10V, f=1MHz		35		pF	
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	IC=0.75A, IB=0.15A			2.0	V	
Base-to-Emitter Saturation Voltage	VBE(sat)	IC=0.75A, IB=0.15A			1.5	V	
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=1mA, IE=0	1100			V	
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=5mA, RBE=∞	800			V	
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=1mA, IC=0	7			V	
Collector-to-Emitter Sustain Voltage	VCEX(sus)	IC=0.75A, IB1=-IB2=0.15A, L=5mH, clamped	800			V	
Turn-On Time	ton	V _{CC} =400V, 5l _{B1} =-2.5l _{B2} =l _C =1A, R _L =400Ω			0.5	μs	
Storage Time	tstg	V _{CC} =400V, 5l _{B1} =-2.5l _{B2} =l _C =1A, R _L =400Ω		3.0	μs		
Fall Time	tf	V _{CC} =400V, 5l _{B1} =-2.5l _{B2} =l _C =1A, R _L =400Ω		0.3	μs		

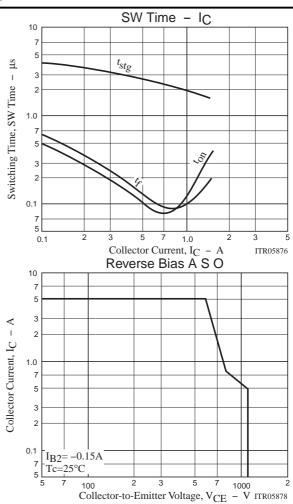
Rank K		L	м		
hFE	10 to 20	15 to 30	20 to 40		

Switching Time Test Circuit









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