2SC5763



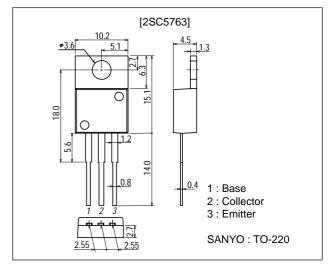
Switching Regulator Applications

Features

- · High breakdown voltage.
- · High reliability.
- · High-speed switching.
- · Wide ASO.
- · Adoption of MBIT process.

Package Dimensions

unit : mm 2010C



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		700	V
Collector-to-Emitter Voltage	VCEO		400	V
Emitter-to-Base Voltage	VEBO		8	V
Collector Current	IC		7	Α
Collector Current (Pulse)	ICP	PW≤300μs, Duty cycle≤10%	14	Α
Collector Dissipation	PC		1.75	W
	FC	Tc=25°C	55	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	ІСВО	V _{CB} =400V, I _E =0			10	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =5V, I _C =0			10	μΑ

Continued on next page.

^{*:} The hFE1 of the 2SC5763 is classified as follows.

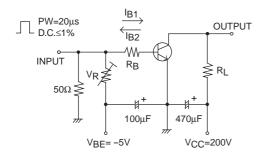
Rank	М	N
hFE1	20 to 40	30 to 50

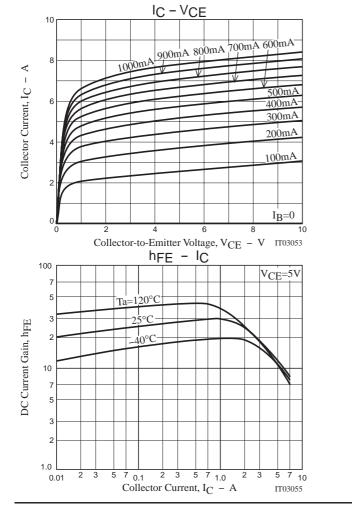
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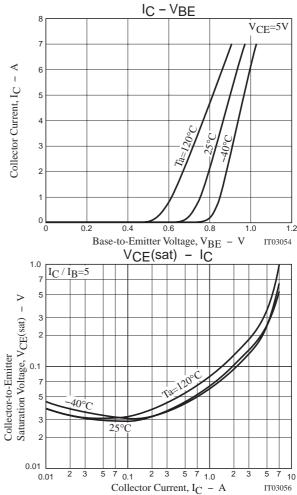
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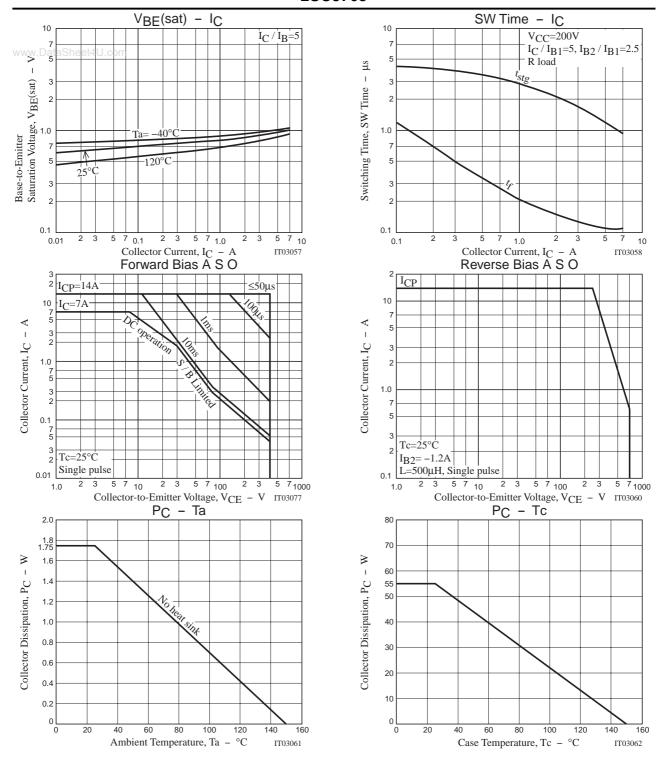
www.DataSheeparameter	Symbol	Conditions	Ratings			Linit
	Symbol	Conditions	min	typ	max	Unit
DC Current Gain	hFE1	V _{CE} =5V, I _C =0.8A	20*		50*	
	hFE2	V _{CE} =5V, I _C =4A	10			
	hFE3	VCE=5V, IC=1mA	10			
Collectoe-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =4A, I _B =0.8A			0.8	V
Base-to-Emitter Saturation Voltage	V _{BE} (sat)	I _C =4A, I _B =0.8A			1.5	V
Gain-Bandwidth Product	fT	VCE=10V, IC=0.8A		17		MHz
Output Capacitance	Cob	V _{CB} =10V, f=1MHz		80		pF
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =1mA, I _E =0	700			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=5mA, RBE=∞	400			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=1mA, IC=0	8			V
Turn-On Time	ton	I _C =5A, I _{B1} =1A, I _{B2} =-2A, R _L =40Ω, V _{CC} =200V			0.5	μs
Storage Time	tstg	I _C =5A, I _{B1} =1A, I _{B2} =-2A, R _L =40Ω, V _{CC} =200V			2.5	μs
Fall Time	tf	I _C =5A, I _{B1} =1A, I _{B2} =-2A, R _L =40Ω, V _{CC} =200V			0.25	μs

Switching Time Test Circuit









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