

High-voltage Switching Transistor (Power Supply) (120V, 7A)

2SC5575

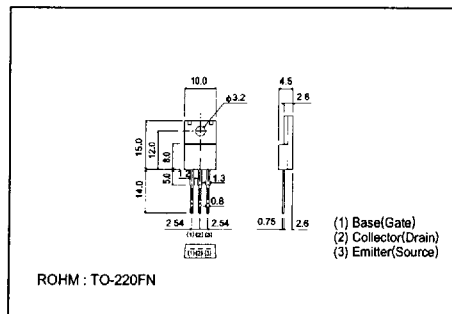
●Features

- 1) Low $V_{CE(sat)}$. (Typ. 0.17V at $I_C / I_B = 5 / 0.5A$)
- 2) Fast switching. (t_f : Typ. 0.18 μs at $I_C = 5A$)
- 3) Wide SOA. (safe operating area)

●Absolute maximum ratings ($T_a = 25^\circ C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	250	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EB0}	12	V
Collector current	I_C	7	A
		15	A($t=100ms$)
Collector power dissipation	P_C	2	W
		25	W($T_C=25^\circ C$)
Junction temperature	T_J	150	$^\circ C$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ C$

●External dimensions (Units : mm)



●Packaging specifications and hFE

Type	2SC5575
Package	TO-220FN
hFE	E
Code	-
Basic ordering unit (pieces)	500

●Electrical characteristics ($T_a = 25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	$V_{CE(sus)}$	125	—	—	V	$I_{CP}=8A, I_{B1}=I_{B2}=0.5A, I_C=5A, L=200\mu H$ clamped
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CE}=100V$
Collector cutoff current	I_{EBO}	—	—	10	μA	$V_{EB}=12V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	0.6	V	$I_C/I_B=5A/0.5A$
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	1.2	V	$I_C/I_B=5A/0.5A$
DC current transfer ratio	hFE	100	—	200	—	$V_{CE}/I_C=5V/3A$
Transition frequency	f _r	—	20	—	MHz	$V_{CE}=10V, I_E=-0.5A$
Output capacitance	C _{ob}	—	150	—	pF	$V_{CE}=10V, I_E=0A, f=1MHz$
Turn-on time	t _{on}	—	—	0.5	μs	$I_C=5A, R_i=10\Omega$
Storage time	t _{stg}	—	—	2.5	μs	$I_{B1}=I_{B2}=0.5A$
Fall time	t _f	—	—	0.5	μs	$V_{CC}=50V$
Collector cutoff current	I_{CEO}	—	—	2	mA	$V_{CE}=100V, T_a=125^\circ C$

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