

# 2SC5271

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## Silicon NPN Triple Diffused Planar Transistor

Application : Resonant Switching Regulator and General Purpose

### Absolute maximum ratings (Ta=25°C)

Symbol	2SC5271	Unit
V <sub>CB0</sub>	300	V
V <sub>CE0</sub>	200	V
V <sub>EB0</sub>	7	V
I <sub>C</sub>	5(Pulse10)	A
I <sub>B</sub>	2	A
P <sub>C</sub>	30(Tc=25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

### Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC5271	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =300V	100max	μA
I <sub>EB0</sub>	V <sub>EB</sub> =7V	100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	200min	V
h <sub>FE1</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =2.5A	10 to 30	
h <sub>FE2</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =1mA	15min	
V <sub>CE(sat)</sub>	I <sub>C</sub> =2.5A, I <sub>B</sub> =0.5A	1.0max	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =2.5A, I <sub>B</sub> =0.5A	1.5max	V
f <sub>T</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-0.5A	10typ	MHZ
C <sub>OB</sub>	V <sub>CB</sub> =10V, f=1MHZ	45typ	pF

### Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (A)	I <sub>B2</sub> (A)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
150	60	2.5	10	-5	0.5	-1.0	0.3max	1.0max	0.1max

### External Dimensions FM20(TO220F)

