2SC4578



# 900V/50mA Switching Applications

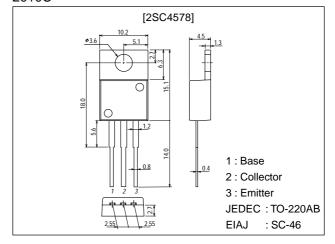
#### **Features**

- · High breakdown voltage.
- · Small Cob.
- · Wide ASO.
- · High reliability (Adoption of HVP process).

### **Package Dimensions**

unit:mm

2010C



## **Specifications**

### Absolute Maximum Ratings at Ta = 25°C

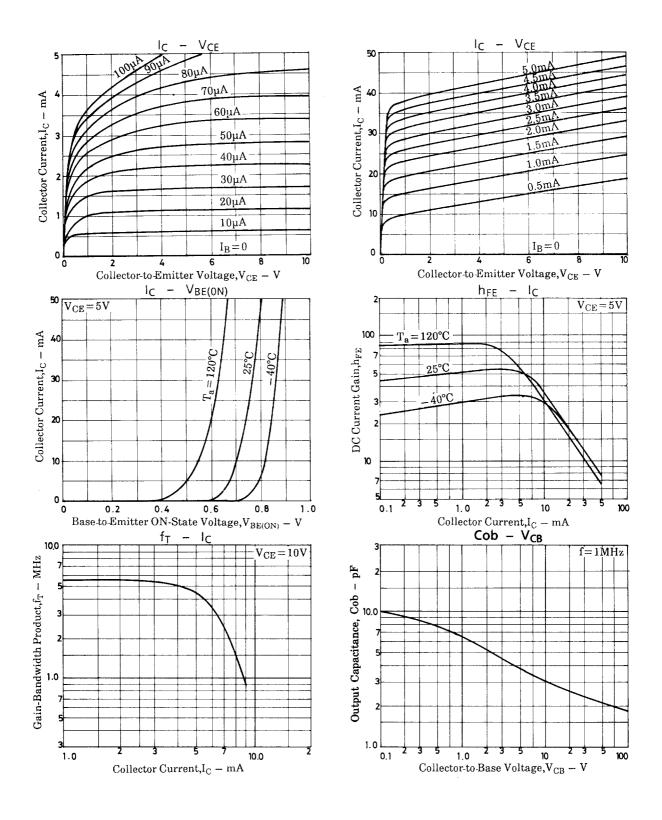
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		1700	V
Collector-to-Emitter Voltage	VCEO		900	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		5	V
Collector Current	lc		50	mA
Collector Current (Pulse)	l <sub>CP</sub>		150	mA
Collector Dissipation	PC		1.75	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

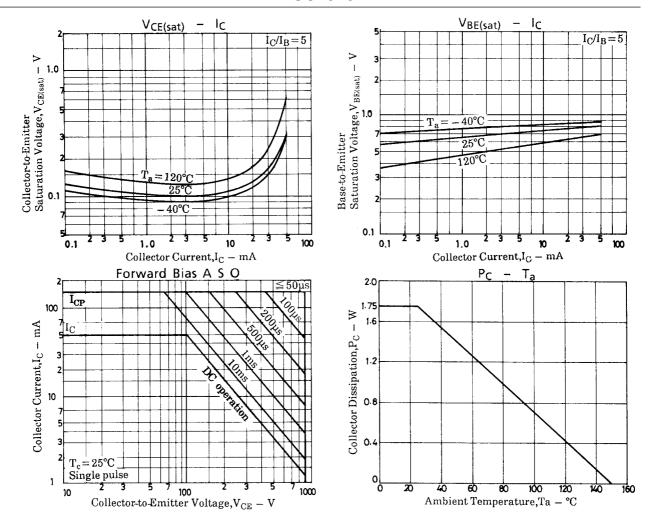
#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	01111
Collector Cutoff Current	ICBO	V <sub>CB</sub> =900V, I <sub>E</sub> =0			1	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =2mA	20	50	120	
Gain-Bandwidth Product	fΤ	V <sub>CE</sub> =10V, I <sub>C</sub> =2mA		6		MHz
Output Capacitance	Cob	V <sub>CB</sub> =100V, f=1MHz		2		pF
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =5mA, I <sub>B</sub> =1mA			5	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =5mA, I <sub>B</sub> =1mA			2	V

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector-to-Base Breakdown Voltage	V(BR)CBO	I <sub>C</sub> =1mA, I <sub>E</sub> =0	1700			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I <sub>C</sub> =1mA, R <sub>BE</sub> =∞	900			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	$I_E=1$ mA, $I_C=0$	5			V





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