

SANYO	No.3102	2SC4451
NPN Triple Diffused Planar Silicon Transistor High-Voltage Switching Applications		

Features

- High breakdown voltage
- Small c_{ob}
- Wide ASO
- High reliability (Adoption of HVP process)

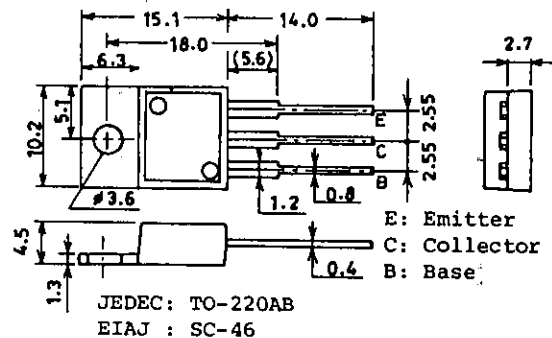
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

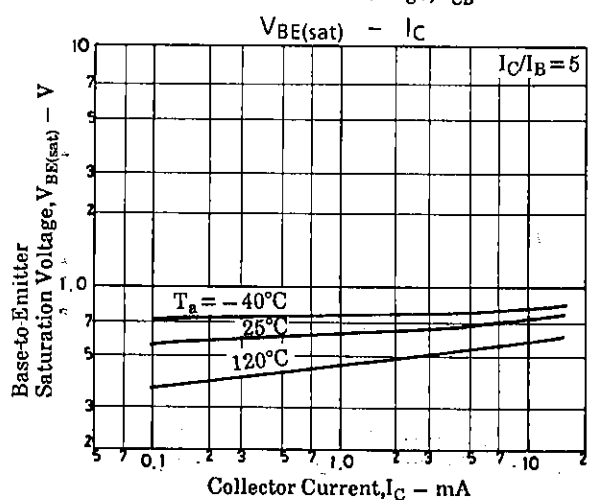
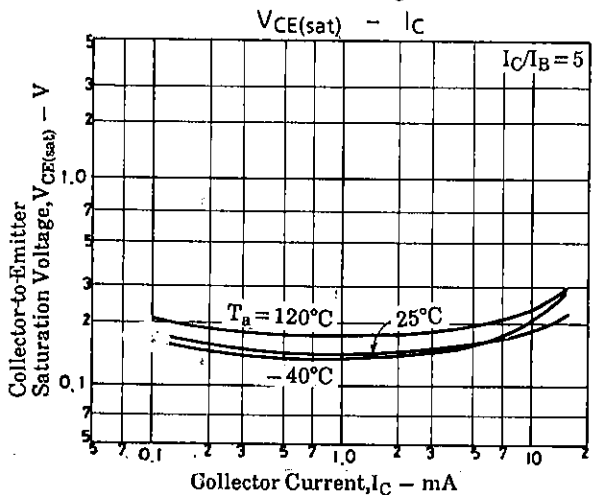
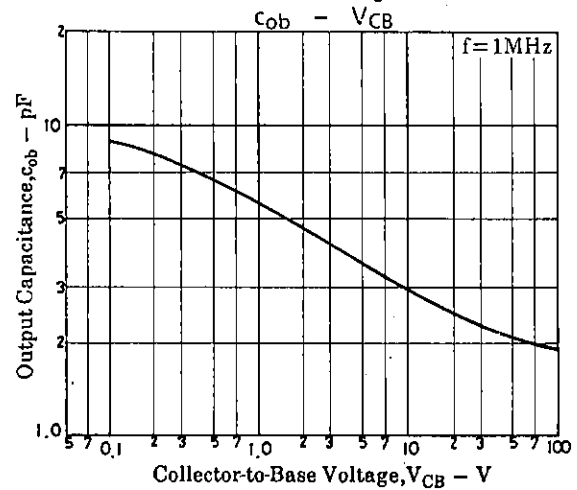
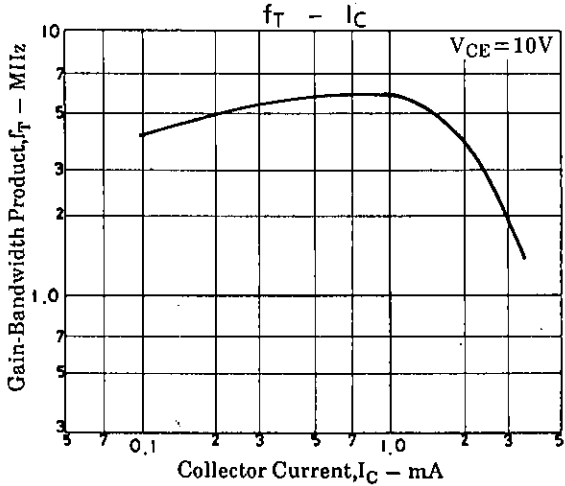
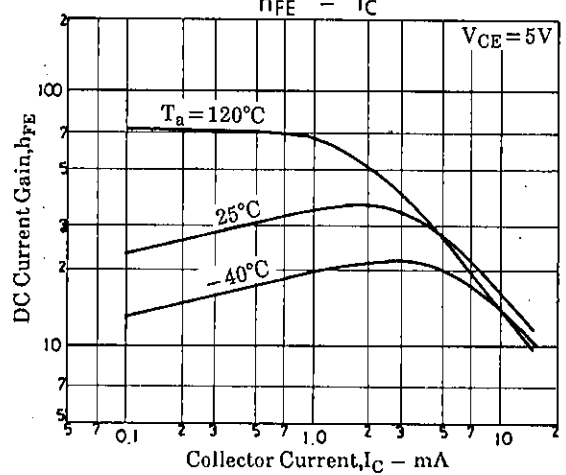
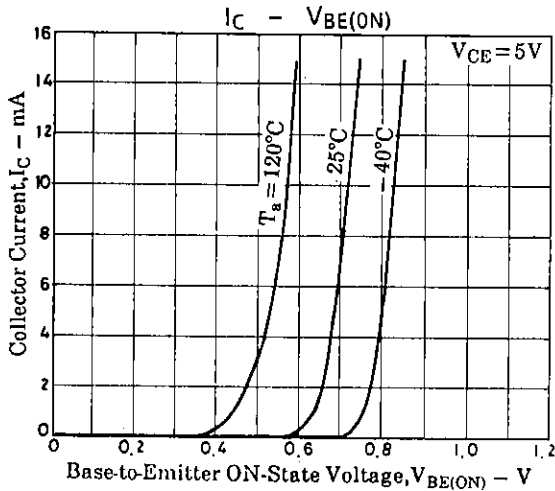
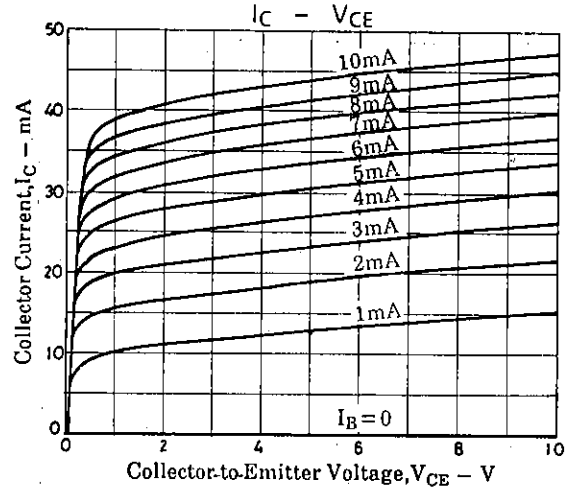
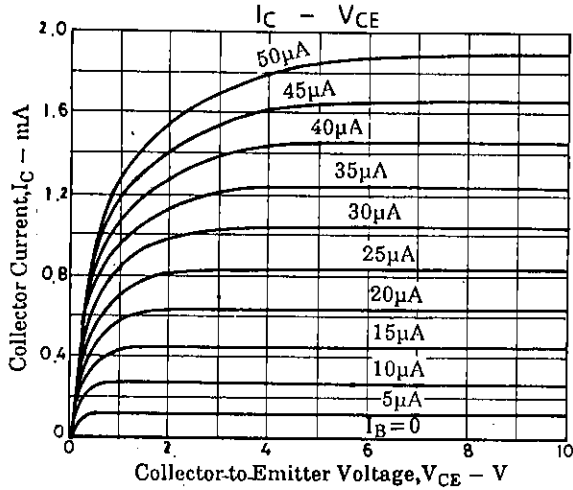
			unit
Collector-to-Base Voltage	V_{CBO}	1500	V
Collector-to-Emitter Voltage	V_{CEO}	1500	V
Emitter-to-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	15	mA
Peak Collector Current	i_{cp}	50	mA
Collector Dissipation	P_C	1.75	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

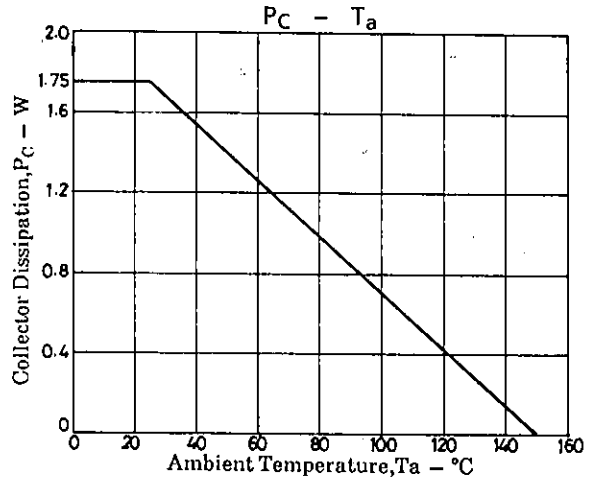
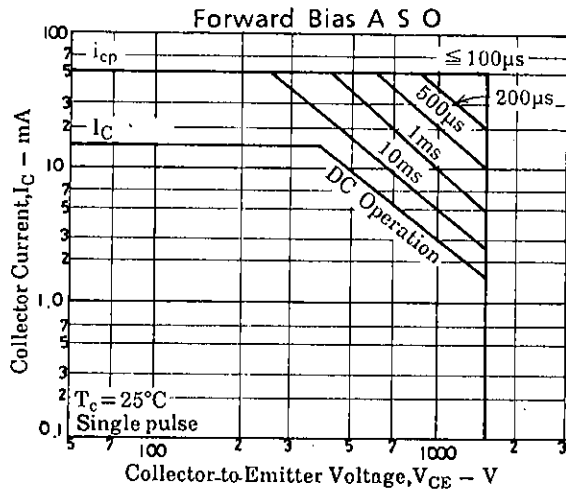
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 1500\text{V}, I_E = 0$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			1	μA
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 600\mu\text{A}$	10		60	
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 600\mu\text{A}$		6		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 1.5\text{mA}, I_B = 0.3\text{mA}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 1.5\text{mA}, I_B = 0.3\text{mA}$			2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	1500			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	1500			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}, I_C = 0$	5			V
Output Capacitance	c_{ob}	$V_{CB} = 100\text{V}, f = 1\text{MHz}$		1.9		pF

Package Dimensions 2010B
(unit: mm)







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