

<b>SANYO</b>	No.2478B	<b>2SC4031</b>
NPN Triple Diffused Planar Silicon Transistor <b>900V/20mA Switching Applications</b>		

**Features**

- High breakdown voltage ( $V_{CEO \text{ min}} = 900V$ ).
- Small Output Capacitance ( $C_{ob \text{ typ}} = 1.6pF$ ).
- Wide ASO (adoption of MBIT process).
- High reliability (adoption of HVP process).

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

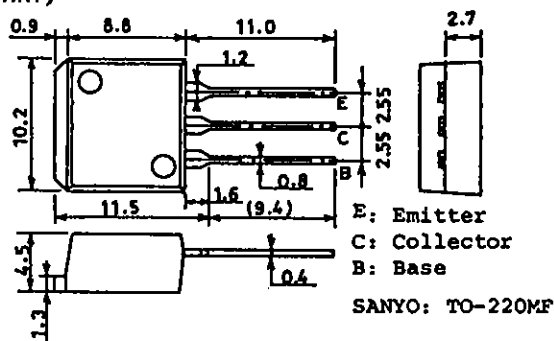
			unit
Collector to Base Voltage	$V_{CBO}$	2000	V
Collector to Emitter Voltage	$V_{CEO}$	900	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	20	mA
Peak Collector Current	$i_{cp}$	60	mA
Collector Dissipation	$P_C$	1.65	W
		1.2	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

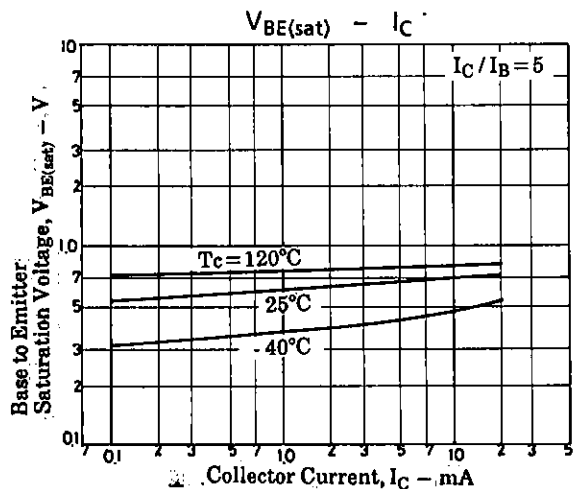
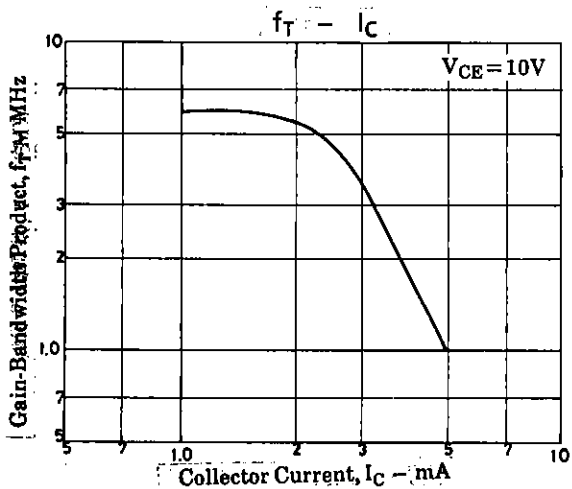
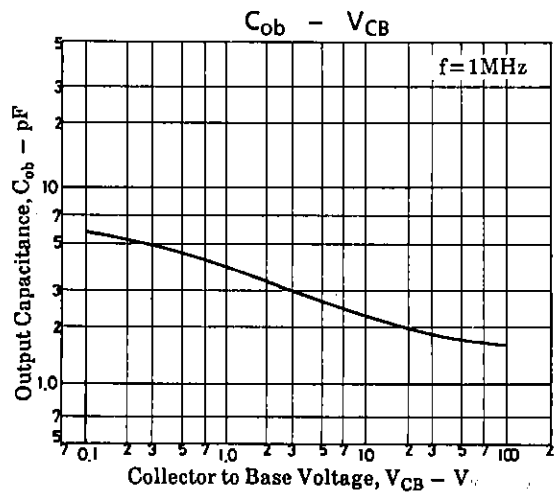
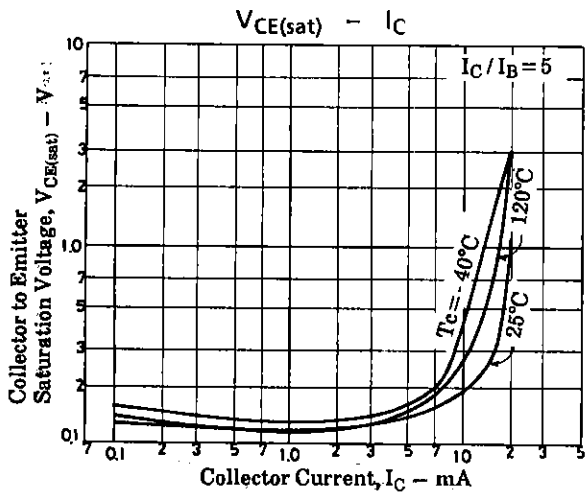
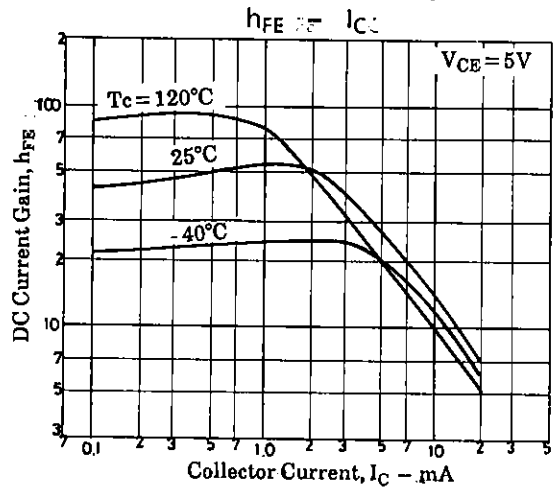
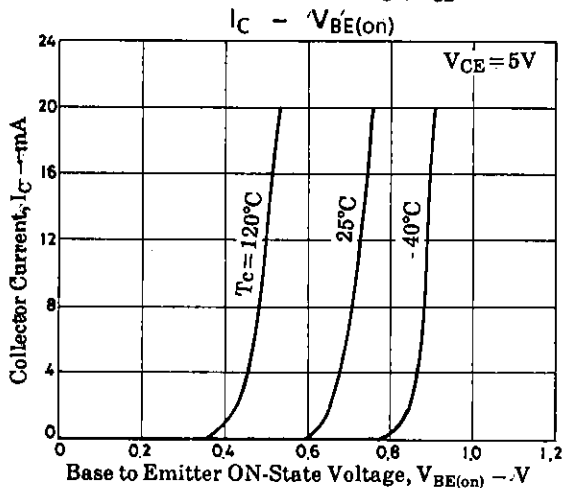
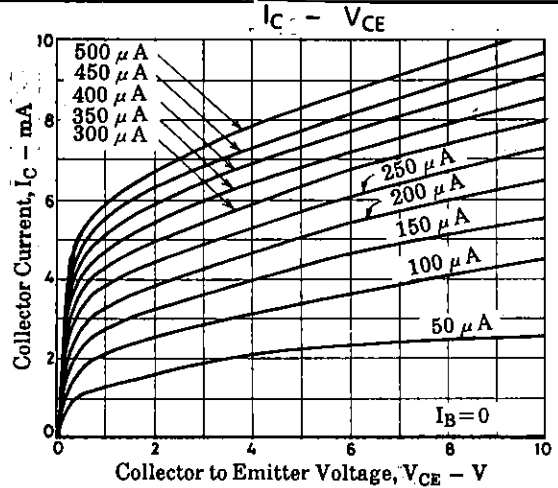
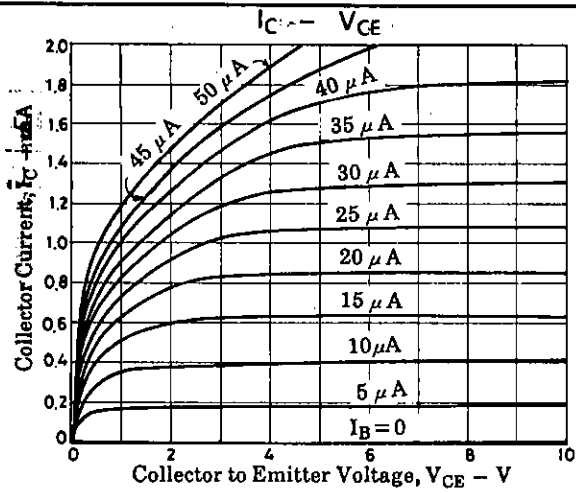
$T_c = 25^\circ C$

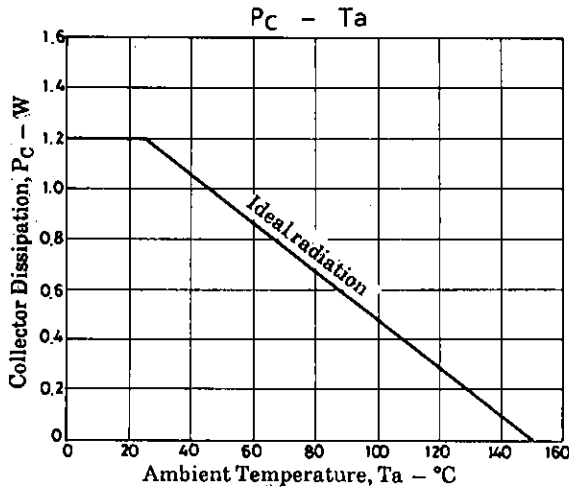
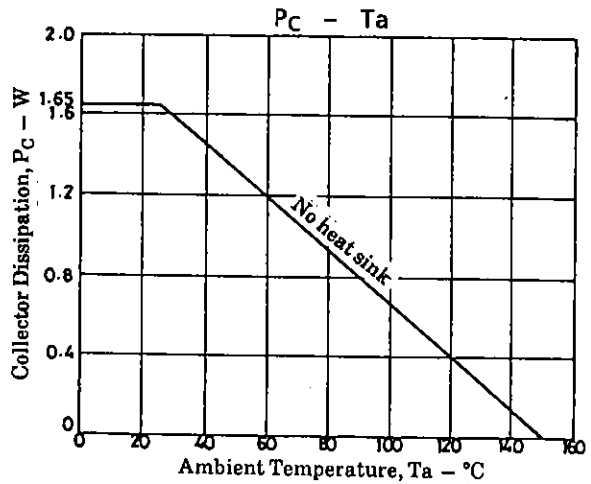
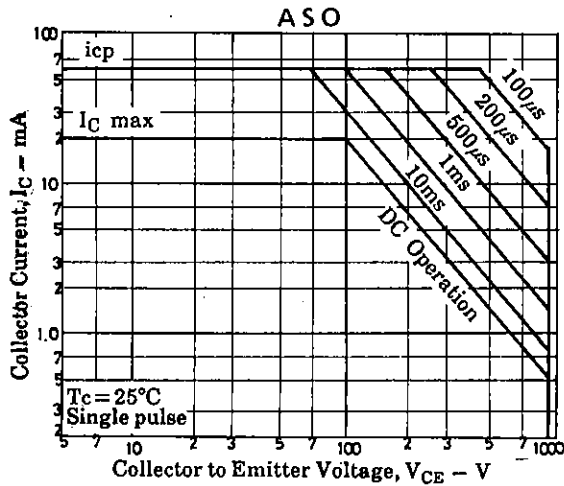
**Electrical Characteristics at  $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 900V, I_E = 0$			1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V, I_C = 0$			1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = 5V, I_C = 1mA$	20	50	120	
Gain-Bandwidth Product	$f_T$	$V_{CE} = 10V, I_C = 1mA$		6		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 2mA, I_B = 400\mu A$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 2mA, I_B = 400\mu A$			2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	2000			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	900			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	5			V
Output Capacitance	$C_{ob}$	$V_{CB} = 100V, f = 1MHz$		1.6		pF

**Package Dimensions 2049B**  
(unit: mm)







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