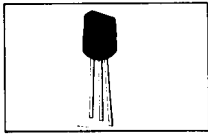




No. C268C



# 2SB598/2SD545

Silicon Epitaxial Planar Type Transistor  
FOR AUDIO FREQUENCY POWER AMP., CONVERTERS,  
ELECTRONIC GOVERNORS

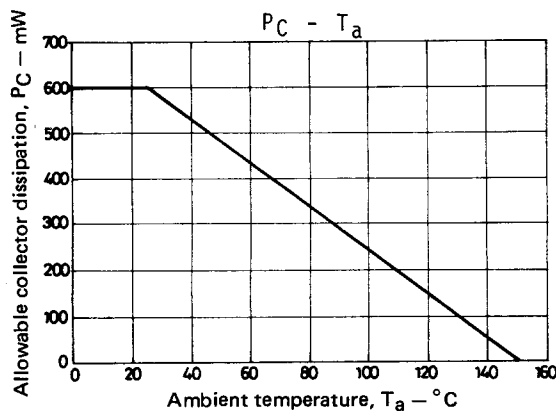
The 2SB598NP/2SD545NP are complementary pair transistors that are packaged in small packages and are large in current capacity and excellent in saturation characteristic and  $h_{FE}$  linearity. In addition to the above application areas, they are also suited for use in desk-top calculator power supplies, relay drivers.

Absolute Maximum Ratings/ $T_a = 25^\circ\text{C}$		2SB598	2SD545	unit
Collector to base voltage	$V_{CBO}$	-25	25	V
Collector to emitter voltage	$V_{CEO}$	-25	25	V
Emitter to base voltage	$V_{EBO}$	-5	5	V
Collector current	$I_C$	-1.0	1.0	A
	$i_{cp}$	-1.5	1.5	A
Collector dissipation	$P_C$	600	600	mW
Junction temperature	$T_j$	150	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	-55 ~ +150	$^\circ\text{C}$

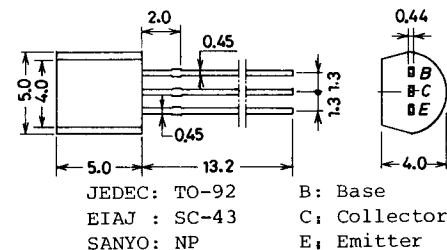
Electrical Characteristics/ $T_a = 25^\circ\text{C}$		2SB598			2SD545			unit
		min	typ	max	min	typ	max	
Collector cutoff current	$I_{CBO}$ $V_{CB} = (-)20\text{V}, I_E = 0$			-1.0			1.0	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$ $V_{EB} = (-)4\text{V}, I_C = 0$			-1.0			1.0	$\mu\text{A}$
Collector to base breakdown voltage	$V_{(BR)CBO}$ $I_C = (-)10\mu\text{A}, I_E = 0$	-25			25			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$ $I_C = (-)1\text{mA}, R_{BE} = \infty\Omega$	-25			25			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$ $I_E = (-)10\mu\text{A}, I_C = 0$	-5			5			V
DC current gain	$h_{FE}(1)^*$ $V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$	60		560	60		560	
	$h_{FE}(2)$ $V_{CE} = (-)2\text{V}, I_C = (-)1\text{A}(\text{pulse})$	30			30			
Gain bandwidth product	$f_T$ $V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$		180			180		MHz
Common base output capacitance	$c_{ob}$ $V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		25			15		pF
Collector to emitter saturation voltage	$V_{CE(sat)}$ $I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$	-0.15		-0.5		0.1	0.3	V
Base to emitter saturation voltage	$V_{BE(sat)}$ $I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$	-0.85		-1.2		0.85	1.2	V

\*  $h_{FE}(1)$  is classified by 2 V, 50 mA as follows:

60	D	120	100	E	200	160	F	320	280	G	560
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Case Outline 2003  
(unit: mm)



These specifications are subject to change without notice.