

2SB502A 2SB503A

AUDIO POWER AMPLIFIER APPLICATIONS.
REGULATOR APPLICATIONS.

FEATURES :

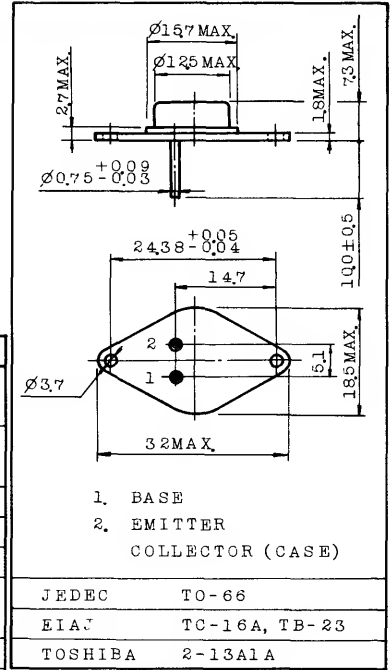
- Low Saturation Voltage : $V_{CE(sat)} = -1.5V(\text{Max.}) (I_C = -3A)$
- Complementary to 2SD877.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	2SB502A	V _{CBO}	-110	V
	2SB503A		-80	
Collector-Emitter Voltage	2SB502A	V _{CEO}	-80	V
	2SB503A		-50	
Emitter-Base Voltage		V _{EBO}	-10	V
Collector Current		I _C	-3	A
Emitter Current		I _E	3	A
Collector Power Dissipation	Ta=25°C	P _C	1.5	W
	Tc=25°C		25	
Junction Temperature		T _j	150	°C
Storage Temperature Range		T _{stg}	-65 ~ 150	°C

INDUSTRIAL APPLICATIONS

Unit in mm



Mounting kit No.AC74
Weight : 5.9g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	2SB502A	I _{CBO}	V _{CB} = -110V, I _E = 0	-	-	-100	µA
	2SB503A		V _{CB} = -80V, I _E = 0	-	-	-100	
Emitter Cut-off Current		I _{EBO}	V _{EB} = -10V, I _C = 0	-	-	-100	µA
Collector-Emitter Breakdown Voltage	2SB502A	V _{(BR)CEO}	I _C = -100mA, I _B = 0	-80	-	-	V
	2SB503A			-50	-	-	
DC Current Gain		h _{FE} (1) (Note 2)	V _{CE} = -5V, I _C = -0.5A (Note 1)	30	80	280	
		h _{FE} (2)	V _{CE} = -5V, I _C = -2.5A (Note 1)	15	25	-	
Saturation Voltage	Collector-Emitter	V _{CE(sat)}	I _C = -3A, I _B = -0.3A (Note 1)	-	-	-1.5	V
	Base-Emitter	V _{BE(sat)}	I _C = -3A, I _B = -0.3A (Note 1)	-	-	-1.8	
Transition Frequency		f ₁	V _{CB} = -10V, I _C = -0.5A	-	5	-	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	-	200	-	pF
Switching Time	Turn-on Time	t _{on}		-	1.0	-	µs
	Storage Time	t _{stg}		-	3.0	-	
	Fall Time	t _f		-	1.0	-	

Note 1 : Pulse Test : Pulse Width ≤ 300µs, Duty Cycle ≤ 2%
2 : h_{FE}(1) classification R : 30~70, O : 50~140, Y : 100~280