

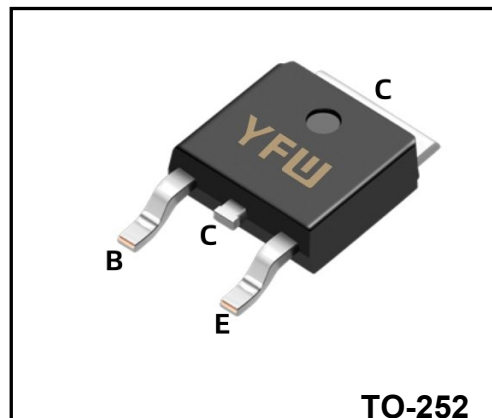
PNP Plastic-Encapsulate Transistors

DESCRIPTION

The 2SB772AD is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

FEATURES

- High current output up to 3A
- Complement to 2SD882AD



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	-40	V
Collector-Emitter Voltage	BV_{CEO}	-30	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current	I_C	-3	A
Collector Power Dissipation	P_C	10	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-40			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-30			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$	-		-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			-1	μA
DC current gain*	h_{FE}	$V_{CE} = -2V, I_C = -20mA$	30			
		$V_{CE} = -2V, I_C = -1.0A$	60		400	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = -2.0A, I_B = -0.2A$			-0.5	V
Base -emitter saturation voltage*	$V_{BE(sat)}$	$I_C = -2.0A, I_B = -0.2A$			-1.5	V
Transition frequency	f_T	$V_{CE} = -5V, I_B = -0.1A$	50			MHz

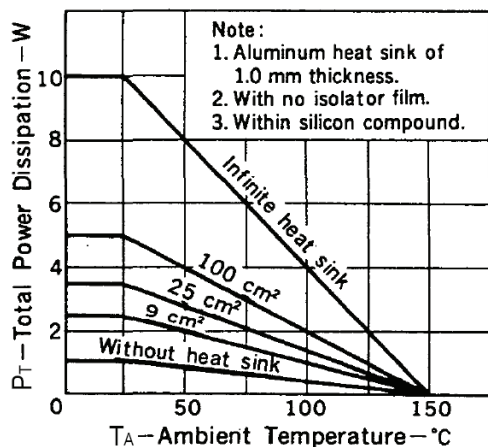
Note *Pulse Test: $PW \leq 350\mu s$, Duty Cycle $\leq 2\%$

hFE Classification

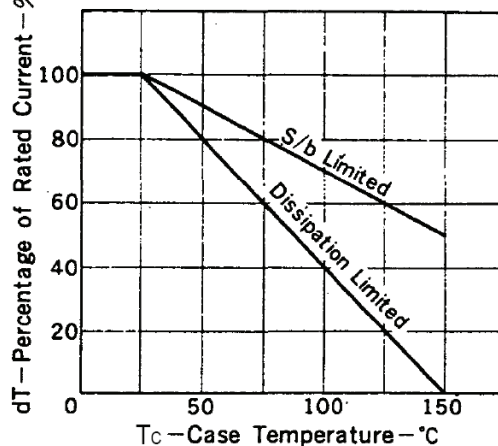
Classification	2SB772AD-R	2SB772AD-Q	2SB772AD-P	2SB772AD-E
h_{FE}	60-120	100-200	160-320	200-400

Typical Characteristics

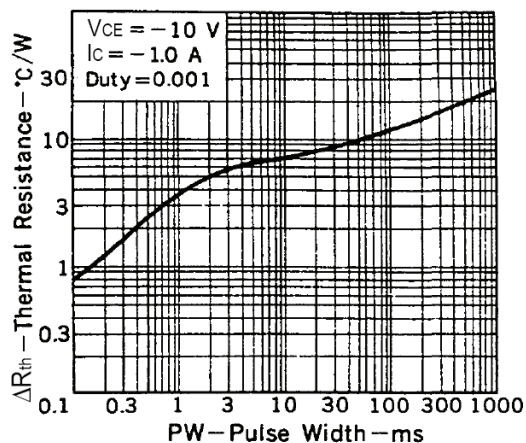
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



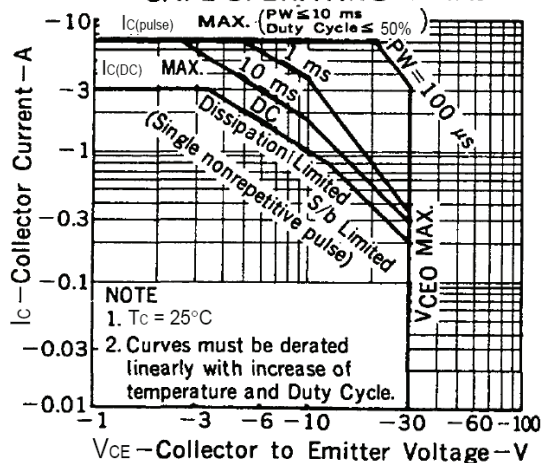
DERATING CURVES FOR ALL TYPES



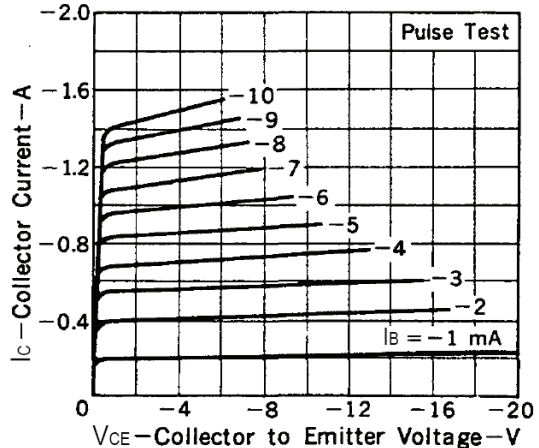
THERMAL RESISTANCE vs. PULSE WIDTH



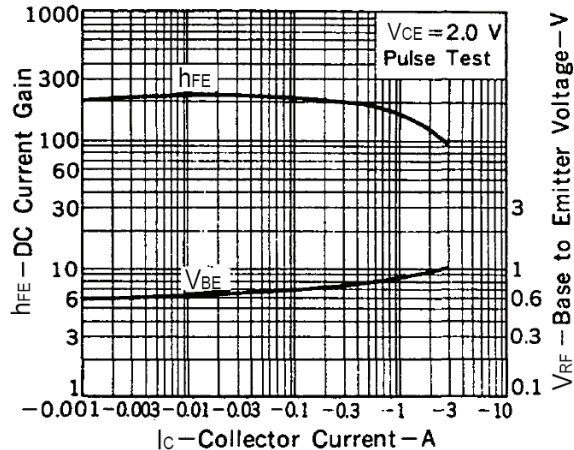
SAFE OPERATING AREAS



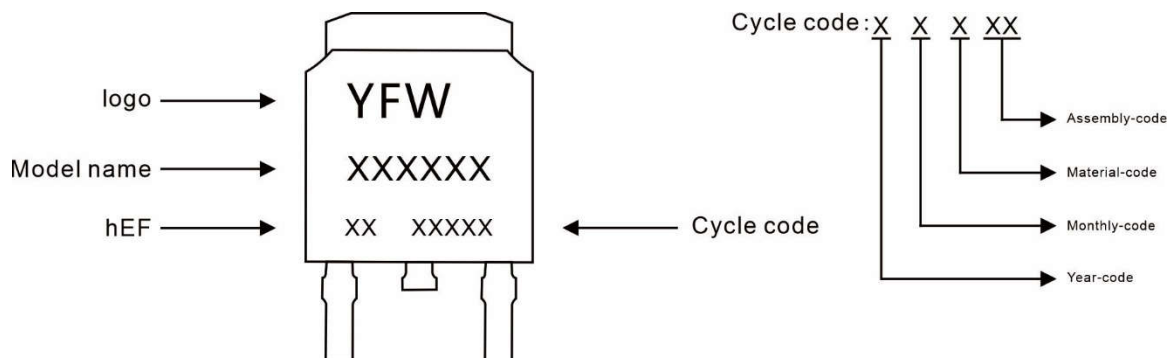
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



DC CURRENT GAIN, BASE TO EMITTER VOLTAGE vs. COLLECTOR CURRENT



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
2SB772AD	TO-252	0.011oz(0.32g)	2500pcs/reel	5000pcs/box 25000pcs/Carton

Package Dimensions

TO-252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	10.00	11.00	0.393	0.433
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

Disclaimer

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