



Features

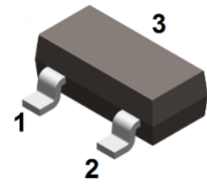
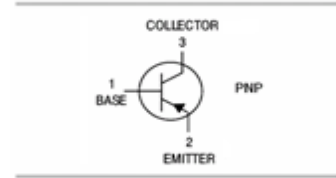
- Low speed switching
- Low saturation voltage
- Excellent h_{FE} linearity and high h_{FE}

APPLICATIONS

- Audio frequency power amplifier

Mechanical Data

- Case: SOT-23-3L
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208



SOT-23-3L

Ordering Information

Part Number	Package	Shipping	Marking Code
B772-3L	SOT-23-3L	3000 pcs / Tape & Reel	B772

Maximum Ratings (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified For Tr1 and Tr2 in common)

Symbol	Parameter	Value	Units
MAXIMUM RATINGS			
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current - Continuous	-3	A
Thermal Characteristic			
P_D	Power Dissipation $T_A=25^{\circ}\text{C}$	500	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient Air	250	$^{\circ}\text{C}/\text{W}$
T_J	Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{STG}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$



Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified For Tr1 and Tr2 in common)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-40	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-30	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-6	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=-40\text{V}, I_E=0$	-	-	-1	μA
Collector cut-off current	I_{CEO}	$V_{CB}=-30\text{V}, I_E=0$	-	-	-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-6\text{V}, I_C=0$	-	-	-1	μA
DC current gain	h_{FE}	$V_{CE}=-2\text{V}, I_C=-1\text{A}$ $V_{CE}=-2\text{V}, I_C=-20\text{mA}$	60 30	160 220	400 -	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-2\text{A}, I_B=-0.2\text{A}$	-	-0.3	-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-2\text{A}, I_B=-0.2\text{A}$	-	-1.0	-2.0	V
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-0.1\text{A}$	-	80	-	MHz

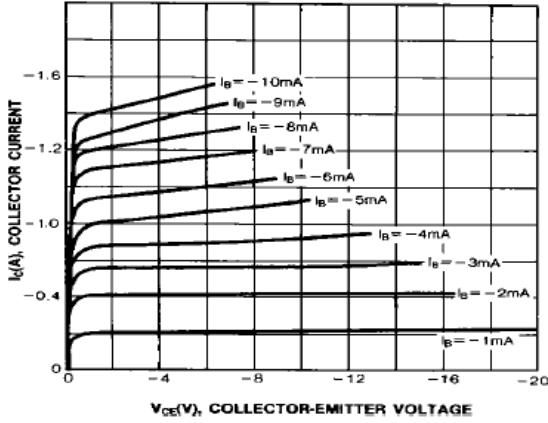
CLASSIFICATION OF h_{FE}

Rank	R	O	Y	G
Range	60-120	100-200	160-320	200-400

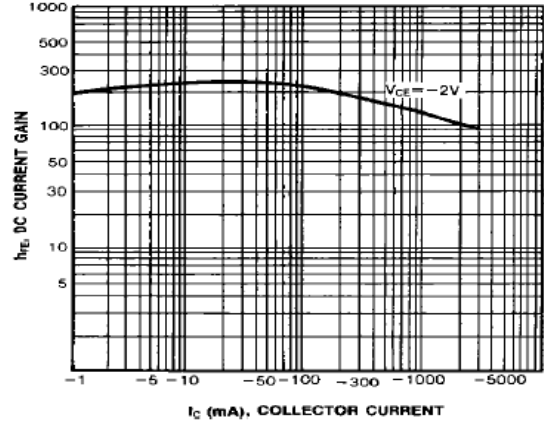


Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

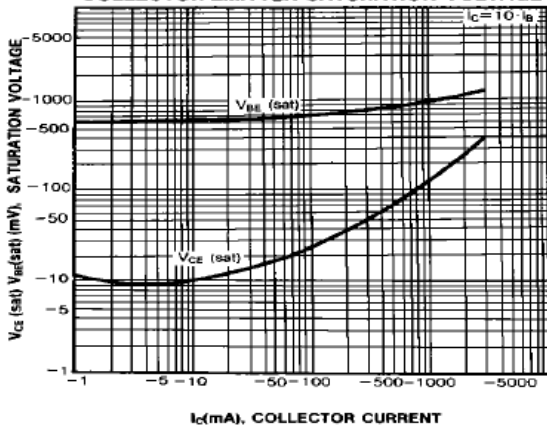
STATIC CHARACTERISTIC



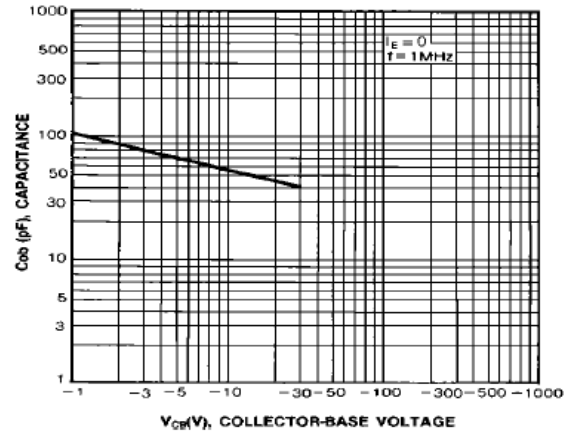
DC CURRENT GAIN



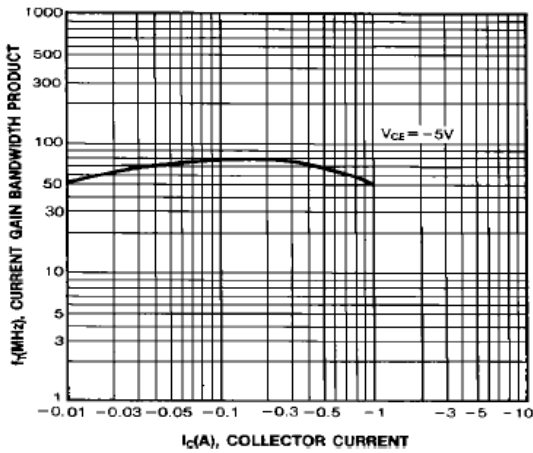
**BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE**



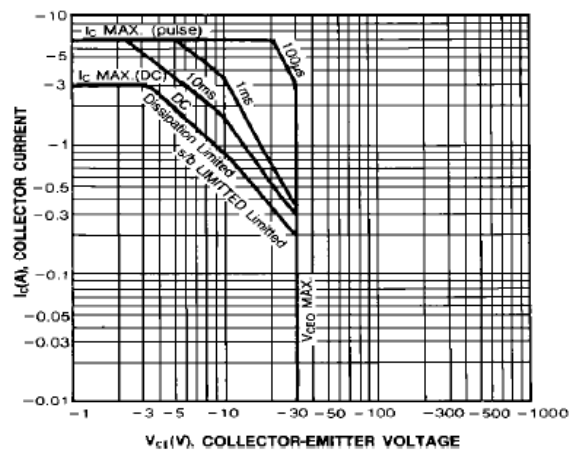
COLLECTOR OUTPUT CAPACITANCE



CURRENT GAIN-BANDWIDTH PRODUCT

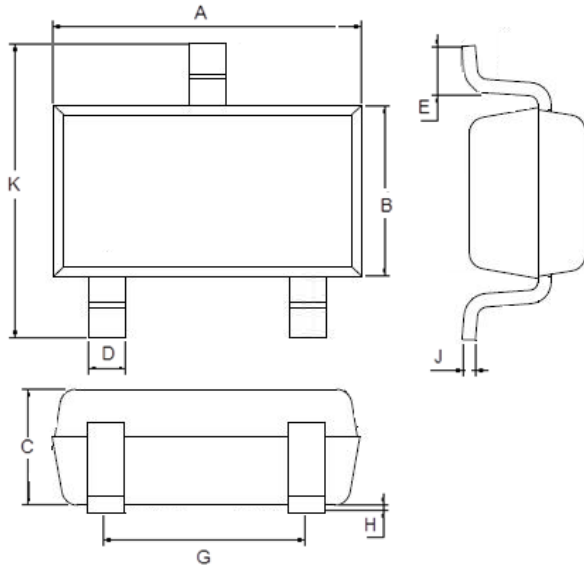


SAFE OPERATING AREA



Package Outline Dimensions(unit:mm)

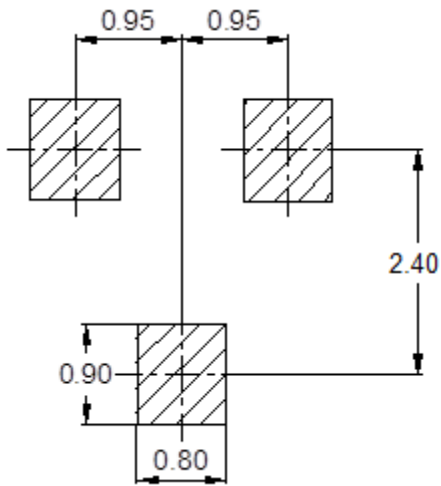
SOT-23-3L



SOT-23-3L		
Dim	Min	Max
A	2.80	3.00
B	1.50	1.70
C	1.00	1.20
D	0.35	0.45
E	0.35	0.55
G	1.80	2.00
H	0.02	0.10
J	0.10	0.20
K	2.60	3.00

SOLDERING FOOTPRINT(unit:mm)

SOT-23-3L



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT-23-3L	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220