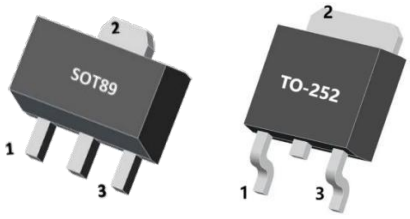
TRANSISTOR (NPN)

Parameter	Value	Unit
V_{CEO}	30	V
I_C	3	A

1. BASE
2. COLLECTOR
3. EMITTER



Features

- Complementary to PNP Transistor B772
- High current output up to 3A
- Low saturation voltage

Applications

- Audio power amplifier
- DC-DC converter
- Voltage regulator

Absolute Maximum Ratings (Ta=25℃ unless otherwise noted)

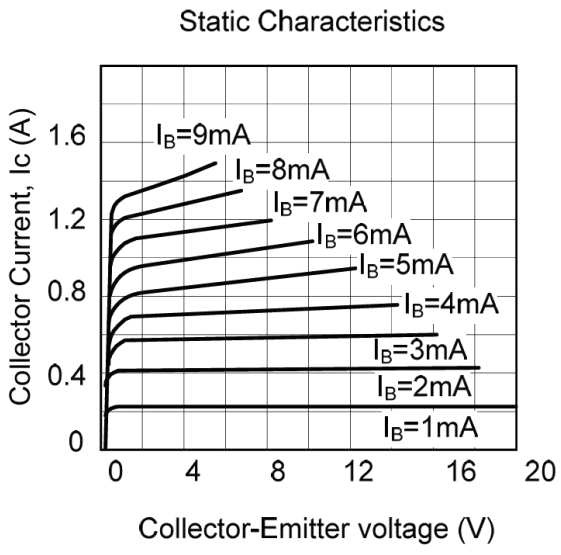
Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage		40	V
V_{CEO}	Collector-Emitter Voltage		30	V
V_{EBO}	Emitter-Base Voltage		7	V
I_C	Collector Current (DC)		3	A
I_{CP}	Collector Current (Pulse)		7	A
I_B	Base Current		0.6	A
P_C	Collector Dissipation	TO-252	1	W
		SOT-89	0.5	
T_J	Operating Junction Temperature		+150	℃
T_{STG}	Storage Temperature		-55 to +150	℃

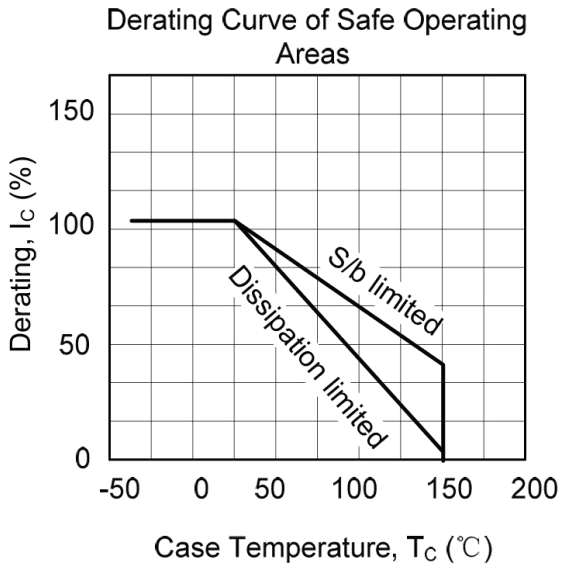
Note:
Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

Electrical Characteristics(Ta=25℃ unless otherwise noted)

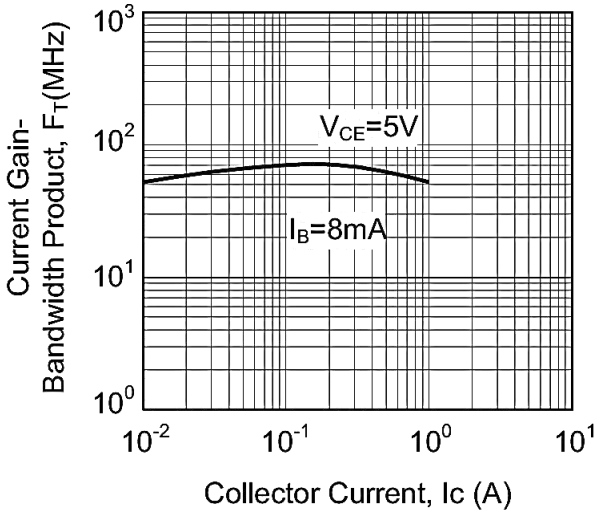
Parameter	Symbol		Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}		I_C= 100μA, I_E=0	40			V
Collector-Emitter Breakdown Voltage	V_{CEO}		I_C= 1mA, I_B=0	30			V
Emitter-Base Breakdown Voltage	V_{EBO}		I_E= 100μA, I_C=0	7			V
Collector Cut-Off Current	I_{CBO}		V_{CB}=30V ,I_E=0			1	μA
Emitter Cut-Off Current	I_{EBO}		V_{EB}=3V, I_C=0			1	μA
DC Current Gain (Note) (CLASSIFICATION OF hFE2)	h_{FE1}		V_{CE}=2V, I_C=20mA	30	200		
	hFE2	A	V_{CE}=2V, I_C= 1A	100		200	
		B		160		320	
		C		200		400	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$		I_C=2A, I_B=0.2A		0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$		I_C=2A, I_B=0.2A		1.0	2.0	V
Current Gain Bandwidth Product	f_T		V_{CE}=5V, I_C=0.1A		80		MHz
Output Capacitance	C_{OB}		V_{CB}= 10V, I_E=0,f=1MHz		45		pF

Typical Characteristics

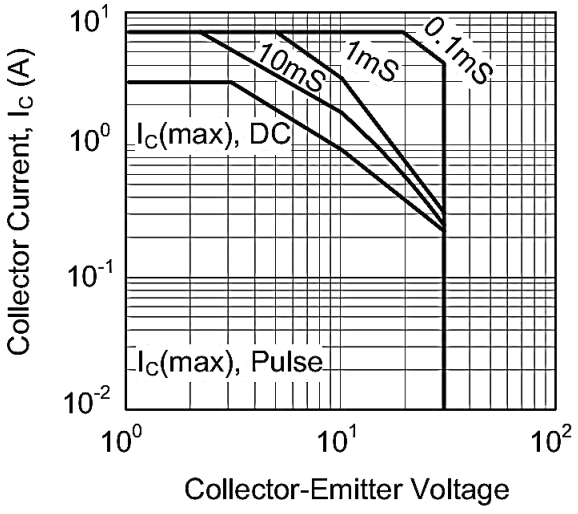




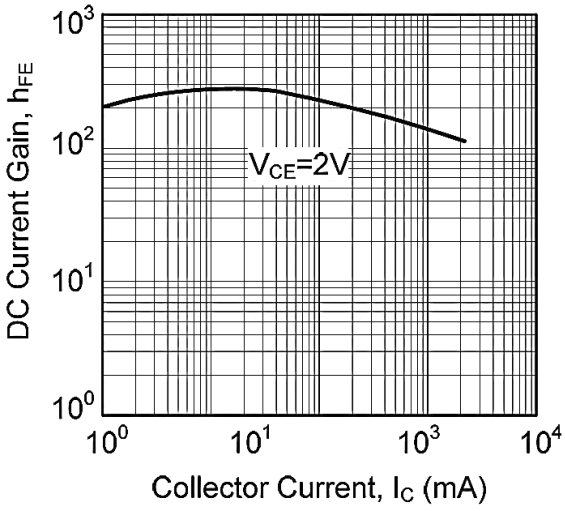
Current Gain-Bandwidth Product



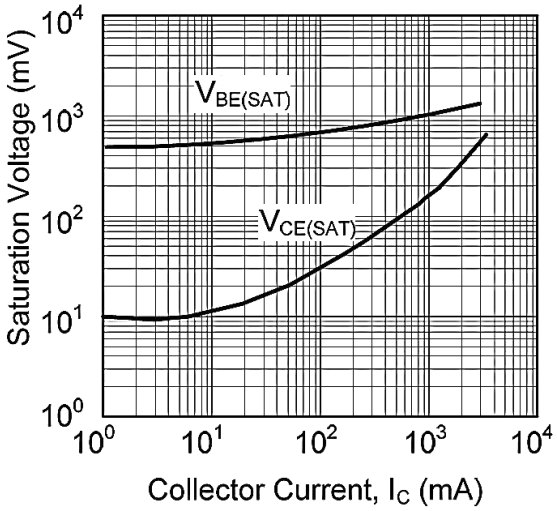
Safe Operating Area



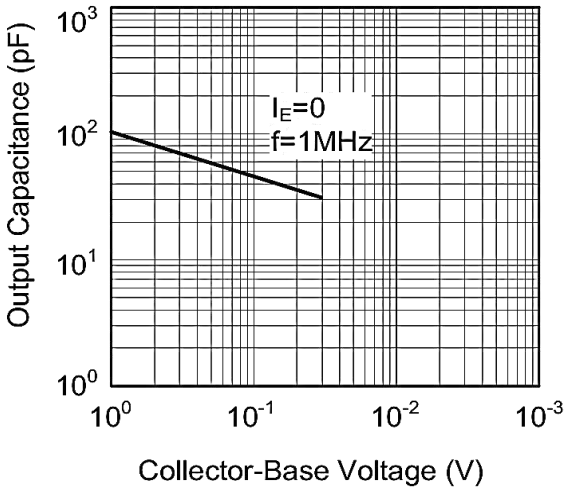
DC Current Gain



Saturation Voltage

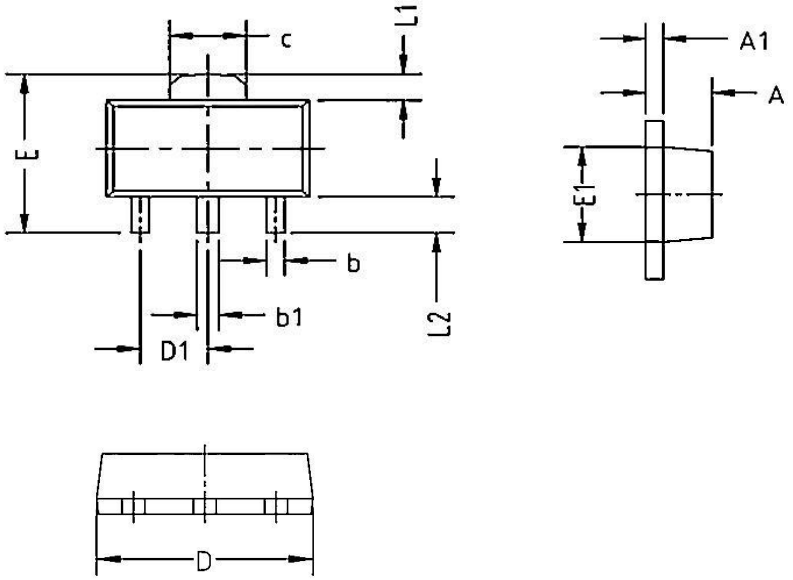


Collector Output Capacitance



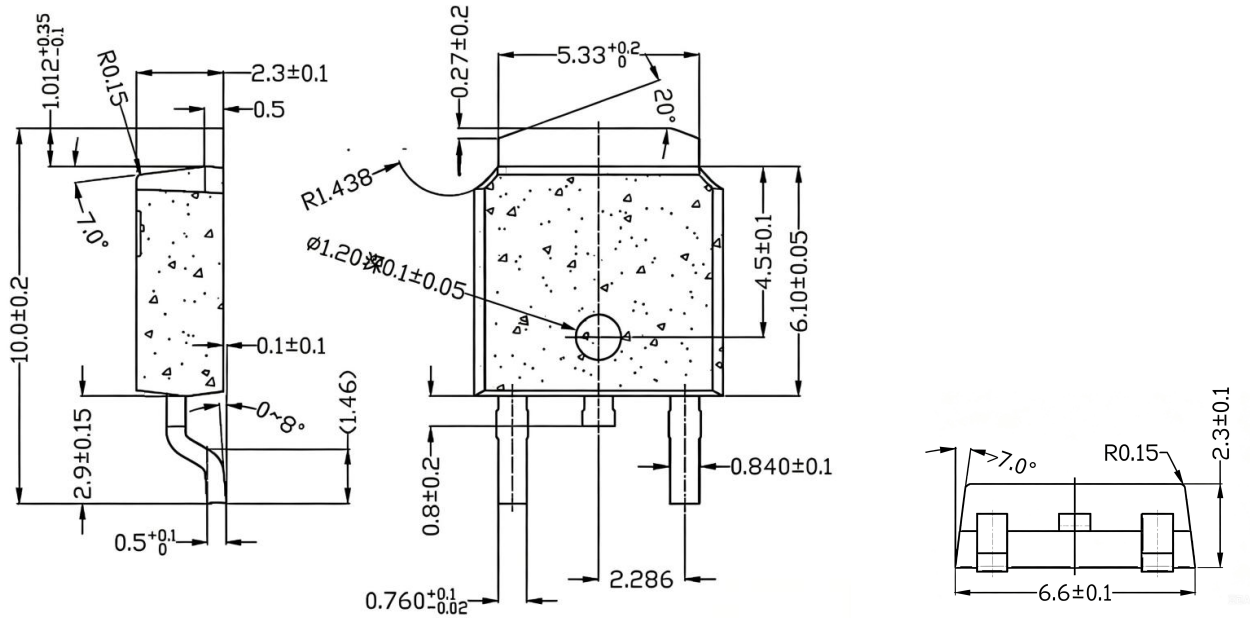
Package Outline Dimensions

SOT-89



COMMON DIMENSION(MM)			
PKG	SOT-89		
Symbol	MIN	MON	MAX
A	1.450	1.500	1.550
A1	0.350	0.400	0.450
b	0.350	0.400	0.48
b1	0.430	0.480	0.550
C	1.500	1.550	1.650
D	4.450	4.550	4.700
D1	1.470	1.500	1.550
E	4.100	4.200	4.300
E1	2.500	2.550	2.650
L1	0.650	0.700	0.750
L2	0.900	0.950	1.000

TO-252



***Important Usage Information and Disclaimer**

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