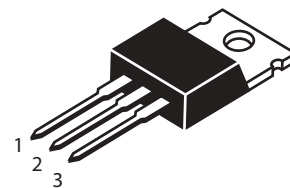
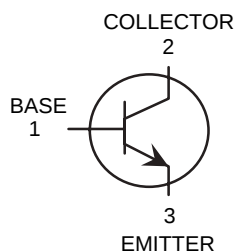


NPN Silicon Epitaxial Power Transistor

Pb Lead(Pb)-Free

FEATURES:

- * Low frequency power amplifier
- * Complement to 2SB834



1. BASE
2. COLLECTOR
3. EMITTER

TO-220

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	1.5	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

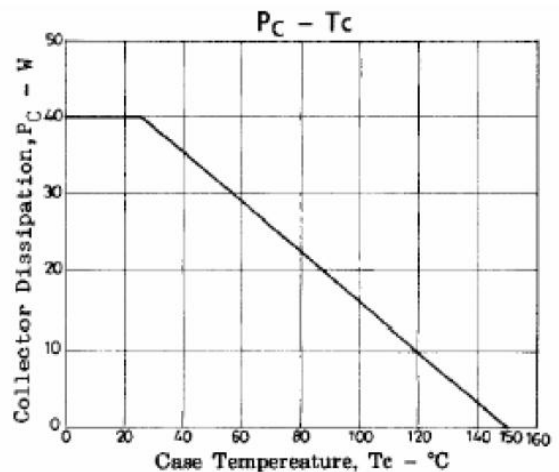
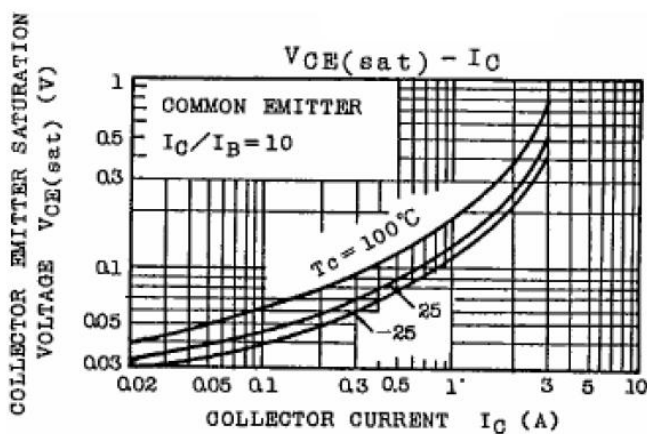
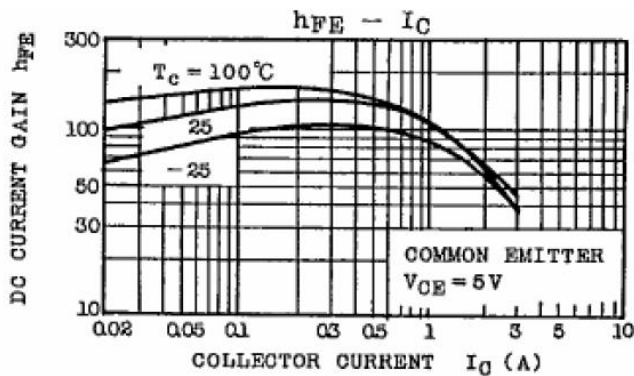
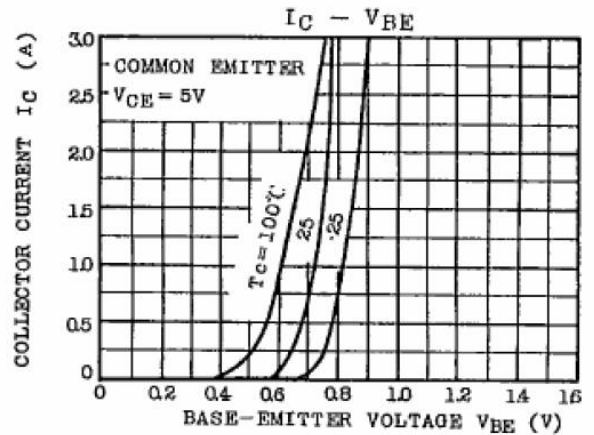
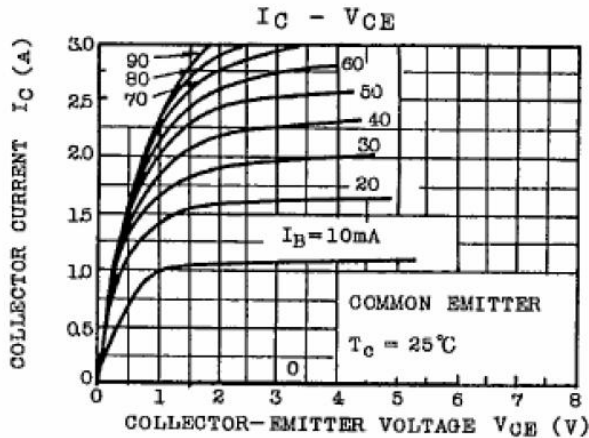
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}$, $I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7\text{V}$, $I_C=0$			100	μA
DC current gain	h_{FE}	$V_{CE}=5\text{V}$, $I_C=500\text{mA}$	60		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3\text{A}$, $I_B=300\text{mA}$			1	V
Base-emitter voltage	V_{BE}	$I_C=0.5\text{A}$, $V_{CE}=5\text{V}$			1	V
Transition Frequency	f_T	$V_{CE}=5\text{V}$, $I_C=500\text{mA}$		3		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		70		pF
Turn on time	t_{on}	$I_{B1}=-I_{B2}=0.2\text{A}$, $I_C=2\text{A}$ $V_{CC}=30\text{V}$, $PW=20\mu\text{s}$		0.8		μs
Storage time	t_s			1.5		μs
Fall time	t_f			0.8		μs

CLASSIFICATION OF h_{FE}

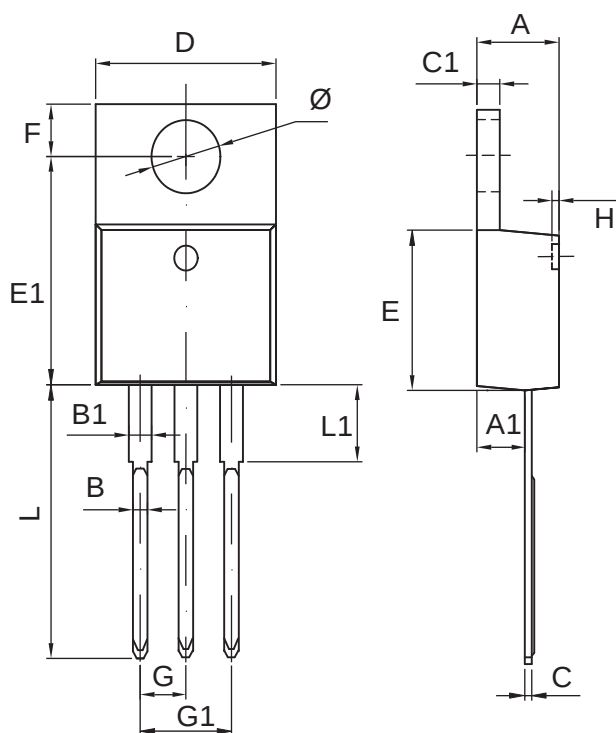
Rank	O	Y	GR
Range	60-120	100-200	150-300

Typical Characteristics



TO-220 Outline Dimensions

unit:mm



TO-220		
Dim	Min	Max
A	4.47	4.67
A1	2.52	2.82
B	0.71	0.91
B1	1.17	1.37
C	0.31	0.53
C1	1.17	1.37
D	10.01	10.31
E	8.50	8.90
E1	12.06	12.446
G	2.54 TYP	
G1	4.98	5.18
F	2.59	2.89
H	0.00	0.30
L	13.4	13.8
L1	3.56	3.96
Φ	3.73	3.93