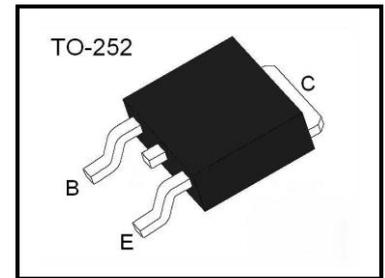


**Applications**

- Audio power amplifier
- DC-DC convertor
- Voltage regulator

**Features**

- High breakdown voltage and high current.  
 $BV_{CEO} = -80V, I_C = -1A$
- Complement to 2SD1898



**Absolute Maximum Rating (Ta=25°C)**

Parameter	Symbol	Value	Unit
Collector-base voltage	$BV_{CBO}$	-80	V
Collector-emitter voltage	$BV_{CEO}$	-80	V
Emitter-base voltage	$BV_{EBO}$	-5	V
Collector current	$I_C$	-1	A
Collector power dissipation	$P_C$	1.5	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~150	°C

**Electrical Characteristics (Ta=25°C)**

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$BV_{CBO}$	$I_C = -50\mu A, I_E = 0$	-80			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -1mA, I_B = 0$	-80			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E = -50\mu A, I_C = 0$	-5			V
Collector -base cut-off current	$I_{CBO}$	$V_{CB} = -60V, I_E = 0$			-1	$\mu A$
Emitter- base cut-off current	$I_{EBO}$	$V_{EB} = -4V, I_C = 0$			-1	$\mu A$
DC current gain*	$h_{FE}$	$V_{CE} = -3V, I_C = -0.1A$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$			-1.0	V
Transition frequency	$f_T$	$V_{CE} = -5V, I_B = -50mA$		100		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0A, f = 1MHz$		25		pF

Note 1: Pulse test: P\* Measured using pulse current

**$h_{FE}$  Classification**

Classification	P	Q	R
Range	82~180	120~270	180~390

Typical Characteristics

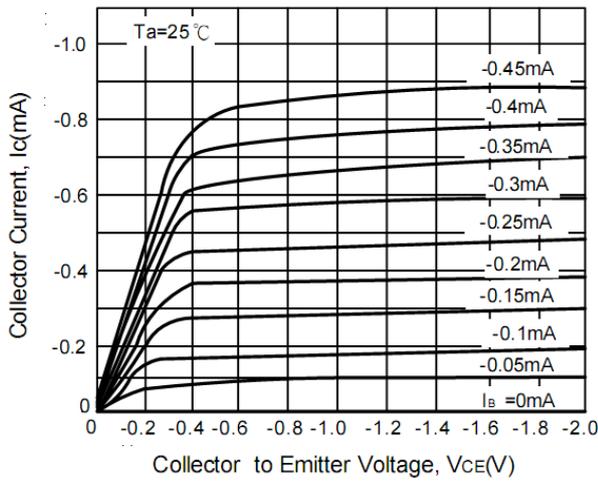


Figure 1. Static Characteristic

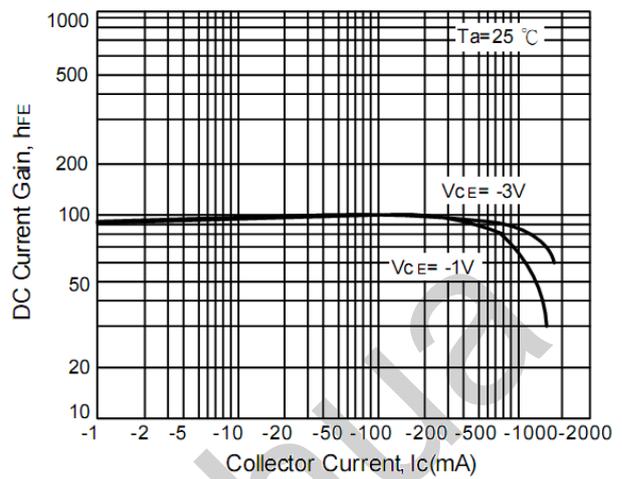


Figure 2. DC current Gain

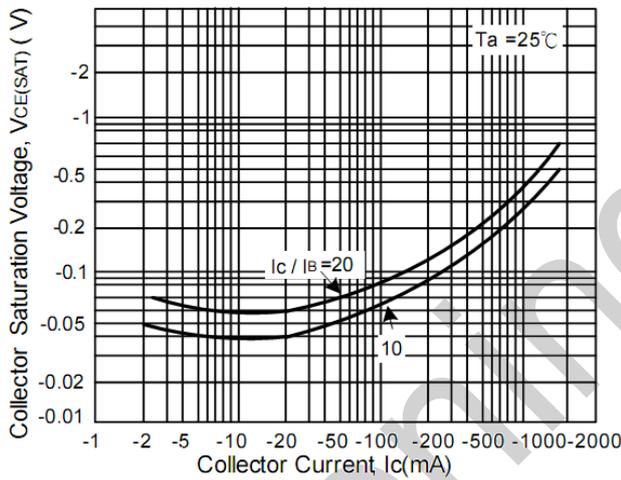


Figure 3. Collector-Emitter Saturation Voltage

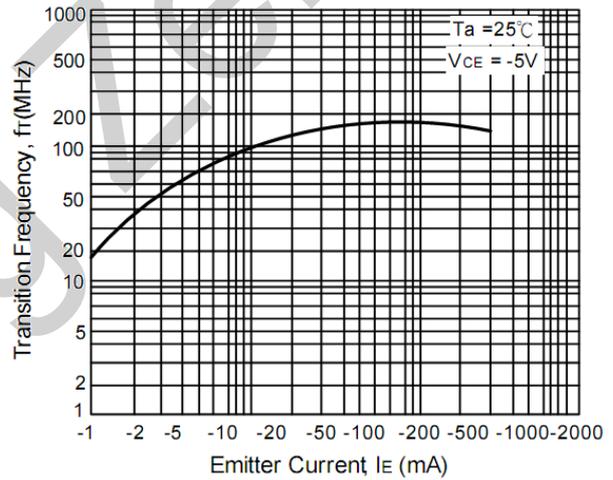


Figure 4. Current Gain Bandwidth Product

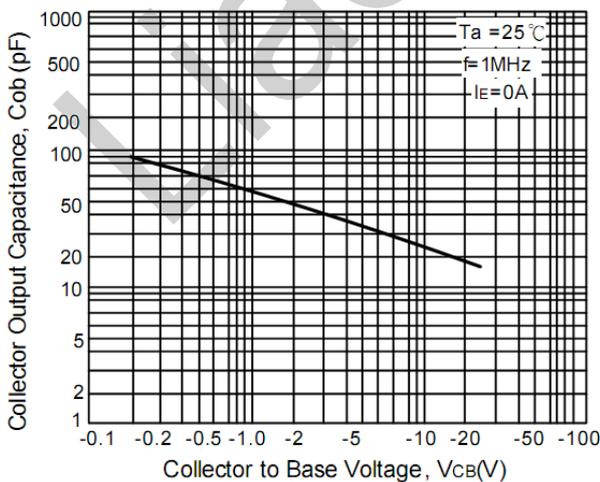


Figure 5. Collector Output Capacitance

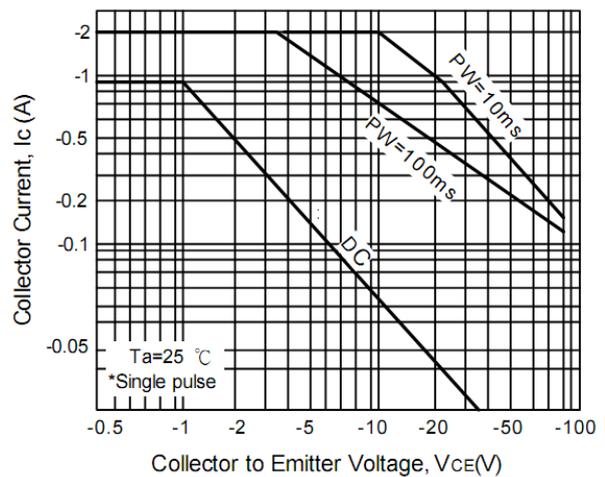
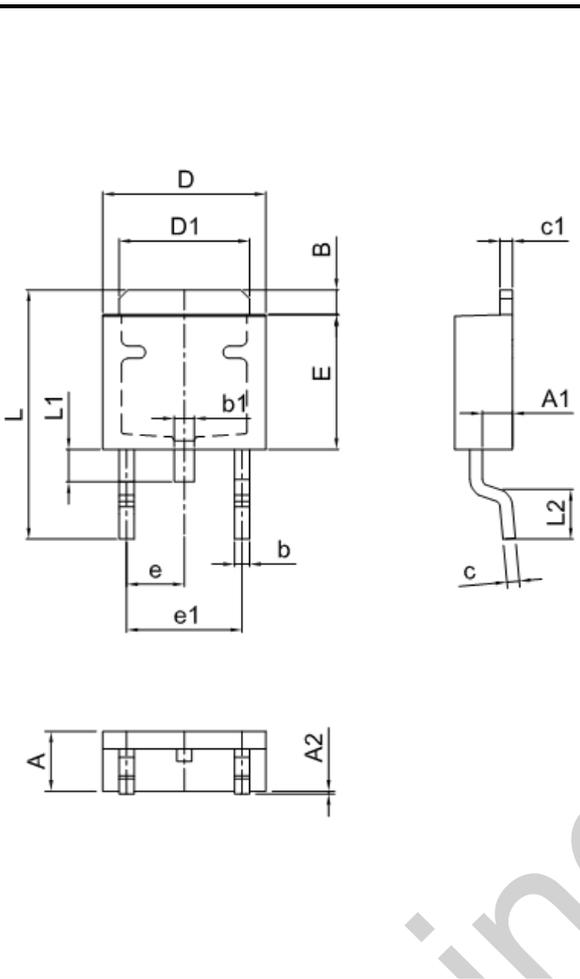


Figure 6. Safe Operating Area

Package Dimensions



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.094
A1	1.00	1.40	0.039	0.055
A2	0.00	0.15	0.000	0.006
B	1.00	1.40	0.039	0.055
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	6.30	6.70	0.248	0.264
D1	5.10	5.50	0.201	0.217
E	5.30	6.00	0.209	0.236
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	9.60	10.40	0.378	0.409
L1	0.60	1.00	0.024	0.039
L2	1.40	1.70	0.055	0.063