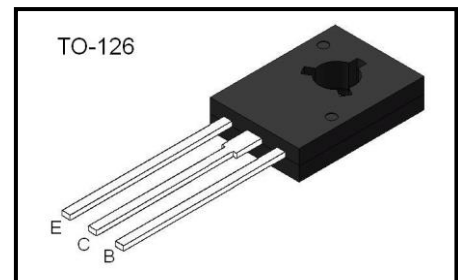


High Voltage General Purpose Applications

- High Collector-Emitter Breakdown Voltage
- Suitable for Transformer
- Complement to KSE350

**Absolute Maximum Ratings** ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	300	V
Collector-Emitter Voltage	BV_{CEO}	300	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current	I_C	500	mA
Collector Power Dissipation ($T_C=25^{\circ}\text{C}$)	P_C	20	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~150	$^{\circ}\text{C}$

Electrical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu\text{A}$, $I_E = 0$	300			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1\text{mA}$, $I_B = 0$	300			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu\text{A}$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 3.0\text{V}$, $I_E = 0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			100	μA
DC current gain	h_{FE}	$V_{CE} = 10\text{V}$, $I_C = 50\text{mA}$	30		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20\text{mA}$, $I_B = 2\text{mA}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20\text{mA}$, $I_B = 2\text{mA}$			0.9	V

Typical Characteristics

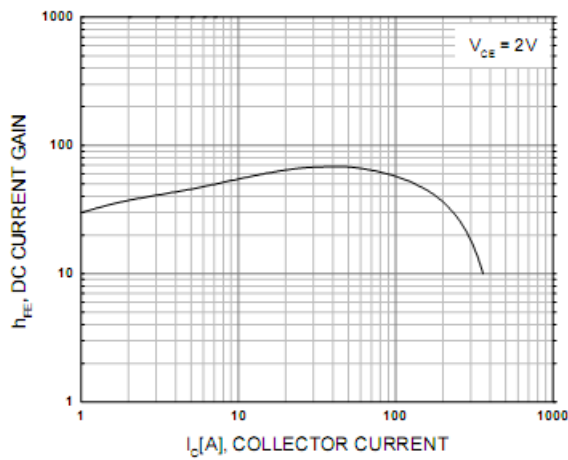


Figure 1. DC current Gain

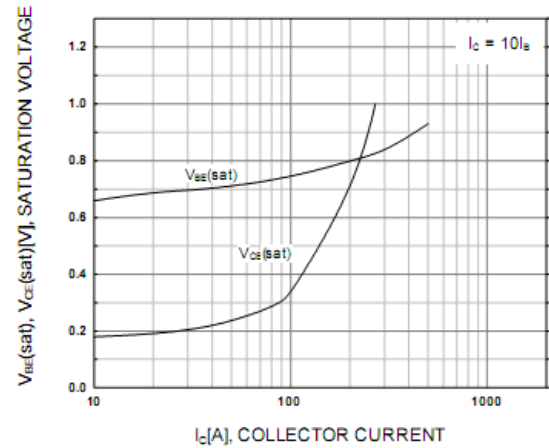
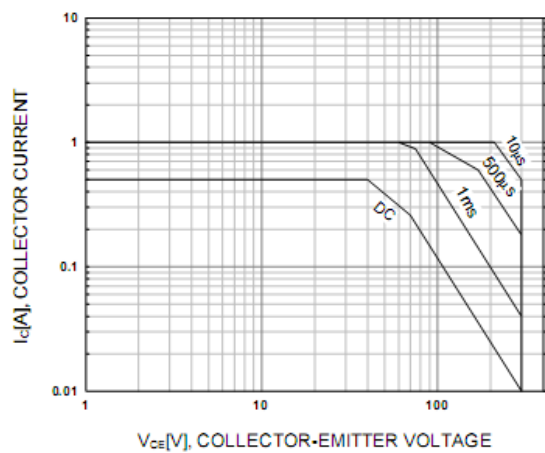
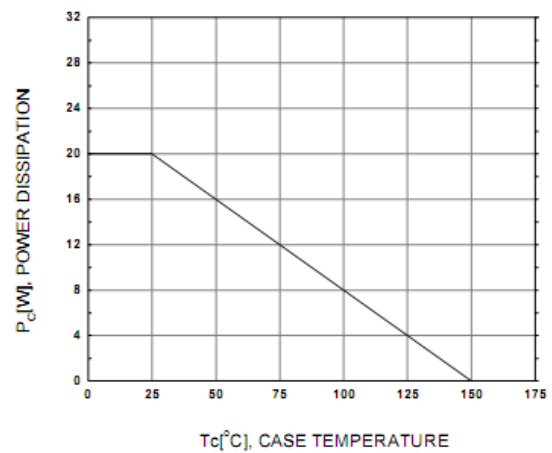
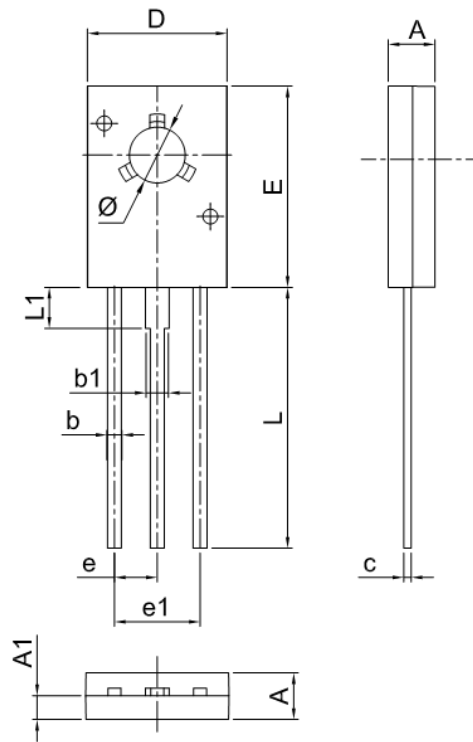
Figure 2. Base-Emitter Voltage
Collector-Emitter Saturation Voltage

Figure 3. Safe Operating Area



4. Power Derating

Package Dimensions



Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.80	0.094	0.110
A1	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.17	1.37	0.046	0.054
c	0.40	0.60	0.016	0.024
D	7.30	7.70	0.287	0.303
E	10.60	11.00	0.417	0.433
e	2.25	2.33	0.089	0.092
e1	4.50	4.66	0.177	0.183
L	14.00	15.00	0.551	0.591
L1	1.90	2.50	0.075	0.098
Φ	3.10	3.30	0.122	0.130