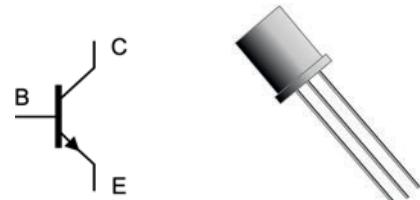


Features

- NPN transistor in Jedec TO-39 metal case.
- Designed for high speed switching application.
- Low leakage currents and low saturation voltage.



Schematic Diagram

TO-39

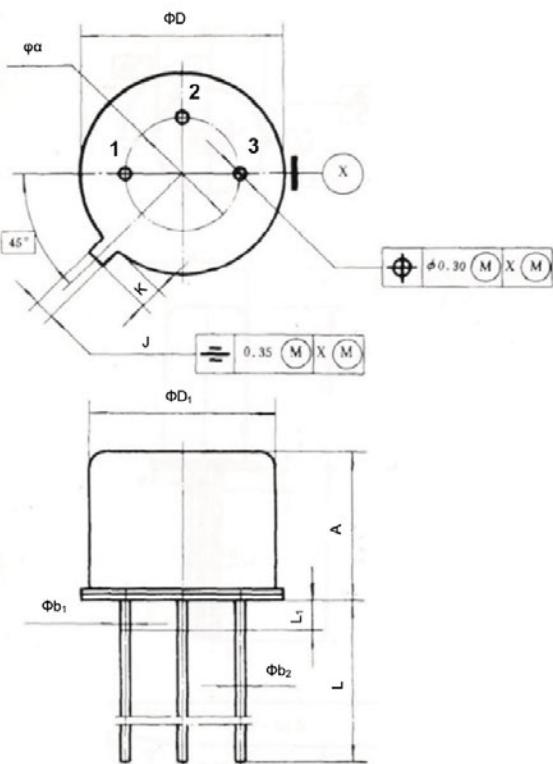
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Emitter Voltage ($I_B=0$)	V_{CEO}	50	V
Collector-Base Voltage ($I_E=0$)	V_{CBO}	70	V
Emitter-Base Voltage ($I_C=0$)	V_{EBO}	6	V
Collector Current-Continuous	I_C	0.8	A
Collector Power Dissipation	P_{TOT}	0.9	W
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\mu\text{A}, I_E=0$	50	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	70	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6	-	-	V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=10\text{V}, I_E=0$	-	-	100	nA
DC Current Gain	H_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	50	-	240	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$	-	-	0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$	-	-	1.2	V
Transition Frequency	F_T	$I_C=20\text{mA}, V_{CE}=25\text{V}, F=100\text{MHz}$	100	-	300	MHz

Package Outline Dimensions (TO-39)



Pin configuration:

- 1- Emitter
- 2- Base
- 3- Collector

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	6.100	6.600	0.240	0.260
φα	5.080 TYP			0.200 TYP
Φb ₁	-	1.010	-	0.040
Φb ₂	0.407	0.508	0.016	0.020
φD	8.640	9.390	0.340	0.370
ΦD ₁	8.010	8.500	0.315	0.335
J	0.712	0.863	0.028	0.034
K	0.740	1.140	0.029	0.045
L	12.50	25.00	0.492	0.984
L ₁	-	1.270	-	0.050