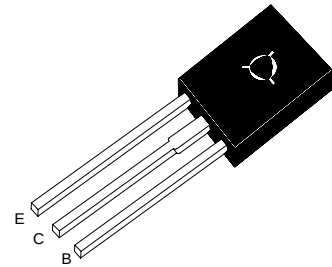


BD136T / BD138T / BD140T

PNP PLASTIC POWER TRANSISTOR

Medium power linear and switching applications



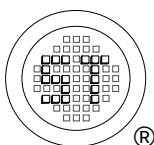
TO-18 Plastic Package

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

Parameter	Symbol	Value			Unit
		BD136T	BD138T	BD140T	
Collector Base Voltage	$-V_{CBO}$	45	60	100	V
Collector Emitter Voltage	$-V_{CEO}$	45	60	80	V
Emitter Base Voltage	$-V_{EBO}$		5		V
Collector Current	$-I_C$		1.5		A
Base Current	$-I_B$		0.5		A
Total Power Dissipation @ $T_A=25^\circ\text{C}$ Derate above 25°C	P_{tot}		1.25 10		W mW/ $^\circ\text{C}$
Total Power Dissipation @ $T_C=25^\circ\text{C}$ Derate above 25°C	P_{tot}		12.5 100		W mW/ $^\circ\text{C}$
Junction Temperature	T_J		150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}		-65 to +150		$^\circ\text{C}$

Thermal Resistance

Parameter	Symbol	Value	Unit
From junction to case	$R_{th\ jc}$	10	W/ $^\circ\text{C}$
From junction to ambient	$R_{th\ ja}$	100	W/ $^\circ\text{C}$



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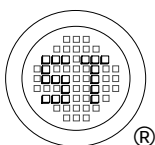


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BD136T / BD138T / BD140T

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $-V_{CE} = 2\text{ V}$, $-I_C = 5\text{ mA}$	h_{FE}	25	-	-
at $-V_{CE} = 2\text{ V}$, $-I_C = 150\text{ mA}$	h_{FE}	40	100	-
-6	h_{FE}	63	160	-
-10	h_{FE}	100	250	-
-16	h_{FE}	160	400	-
-25	h_{FE}	25	-	-
at $-V_{CE} = 2\text{ V}$, $-I_C = 500\text{ mA}$	h_{FE}	25	-	-
Collector Emitter Breakdown Voltage				
at $-I_C = 30\text{ mA}$	BD136T	45	-	V
BD138T	$-V_{(BR)CEO(sus)}$	60	-	
BD140T		80	-	
Collector Base Breakdown Voltage				
at $-I_C = 1\text{ mA}$	BD136T	45	-	V
BD138T	$-V_{(BR)CBO}$	60	-	
BD140T		100	-	
Emitter Base Breakdown Voltage				
at $-I_E = 1\text{ mA}$	$-V_{(BR)EBO}$	5	-	V
Collector Cutoff Current				
at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	0.1	μA
Emitter Cutoff Current				
at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	10	μA
Collector Emitter Saturation Voltage				
at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	0.5	V
Base Emitter Saturation Voltage				
at $-I_C = 500\text{ mA}$, $-V_{CE} = 2\text{ V}$	$-V_{BE(on)}$	-	1	V



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