

BD136/BD138/BD140 TRANSISTOR (PNP)

FEATURES

Power dissipation

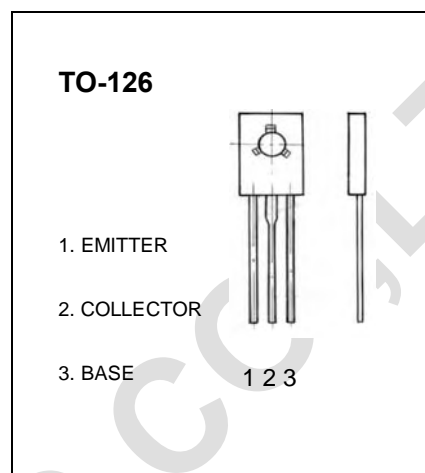
$$P_{CM}: 1.25 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

$$I_{CM}: -1.5 \text{ A}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	BD136	-45		V
			BD138	-60		
			BD140	-80		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -30\text{mA}, I_B = 0$	BD136	-45		V
			BD138	-60		
			BD140	-80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			-10	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -5\text{mA}$	25			
	$h_{FE(2)}$	$V_{CE} = -2\text{V}, I_C = -150\text{mA}$	BD136	40		250
			BD138 BD140	40		160
$h_{FE(3)}$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	25				
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$			-1	V

CLASSIFICATION OF $h_{FE(2)}$

Rank	6	10	16
Range	40-100	63-160	100-250