



TO-126 Plastic-Encapsulated Transistors

BD135/BD137/BD139 TRANSISTOR (NPN)

FEATURES

Power dissipation

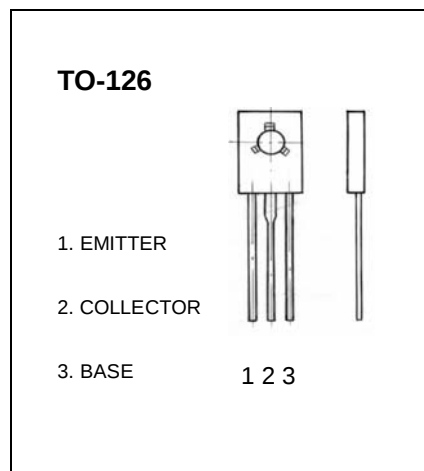
P_{CM} : 1.25 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 1.5 A

Operating and storage junction temperature range

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



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	BD135	45			V
			BD137	60			
			BD139	80			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=30mA, I_B=0$	BD135	45			V
			BD137	60			
			BD139	80			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$		5			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$				0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$				10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=5mA$		25			
	$h_{FE(2)}$	$V_{CE}=2V, I_C=150mA$	BD135	40		250	
			BD137/BD139	40		160	
	$h_{FE(3)}$	$V_{CE}=2V, I_C=500mA$		25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$				0.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=2V, I_C=500mA$				1	V

CLASSIFICATION OF $h_{FE(2)}$

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