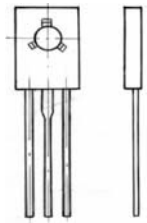
Transys Electronics LIMITED

TO-126 Plastic-Encapsulated Transistors

BD135/BD137/BD139 TRANSISTOR (NPN)

TO-126



1. EMITTER
2. COLLECTOR
3. BASE

1 2 3

FEATURES

Power dissipation

P_{CM}: 1.25 W (Tamb=25℃)

Collector current

I_{CM}: 1.5 A

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=100μA, I_E=0	BD135	45			V
			BD137	60			
			BD139	80			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=30mA, I_B=0	BD135	45			V
			BD137	60			
			BD139	80			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, 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