

### BD135/BD137/BD139 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

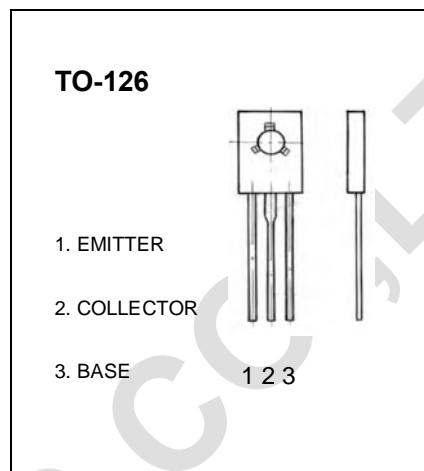
$P_{CM}$ : 1.25 W ( $T_{amb}=25^{\circ}C$ )

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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			10	$\mu A$
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