



TO-126 Plastic-Encapsulate Transistors

BD138 TRANSISTOR (PNP)

FEATURES

Power dissipation

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

Collector current

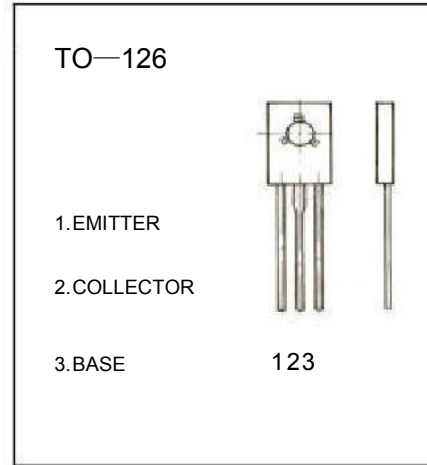
I_{CM} : -1.5 A

Collector-base voltage

$V_{(BR)CBO}$: -60 V

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-basebreakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\mu A, I_E=0$	-60			V
Collector-emitter sustaining voltage	$V_{CEO(SUS)}$	$I_C=-0.03A, I_B=0$	-60			V
Emitter-basebreakdown voltage	$V_{(BR)EBO}$	$I_E=-0.1mA, I_C=0$	-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 currentgain	$h_{FE(1)}$	$V_{CE}=-2V, I_C=-150mA$	40		250	
DC currentgain	$h_{FE(2)}$	$V_{CE}=-2V, I_C=-5mA$	25			
DC currentgain	$h_{FE(3)}$	$V_{CE}=-2V, I_C=-500mA$	-25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$			-0.5	V
Base-emitter voltage	V_{BE}	$I_C=-500mA, V_{CE}=-2V$			-1	V

CLASSIFICATION OF $h_{FE(1)}$

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

