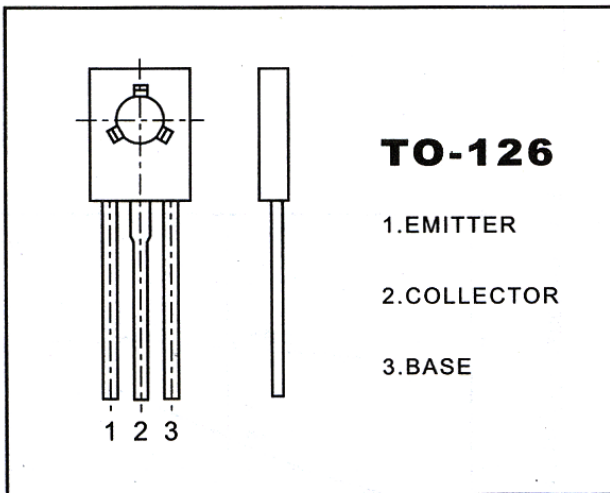


TO-126 Plastic-Encapsulate Transistors

BD233/235/237 TRANSISTOR(NPN)



FEATURES

Power dissipation

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

Collector current

I_{CM} : 2 A

Collector-base voltage

$V_{(BR)CBO}$: BD233 : 45V

BD235 : 60V

BD237: 100V

Operating and storage junction temperature range

T_{stg} : $-65^{\circ}C$ to $+150^{\circ}C$

T_J : $150^{\circ}C$

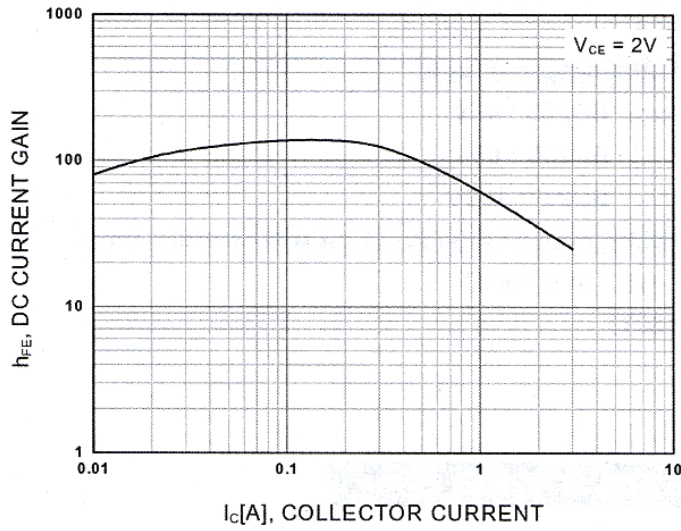
ELECTRICAL CHARACTERISTICS

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

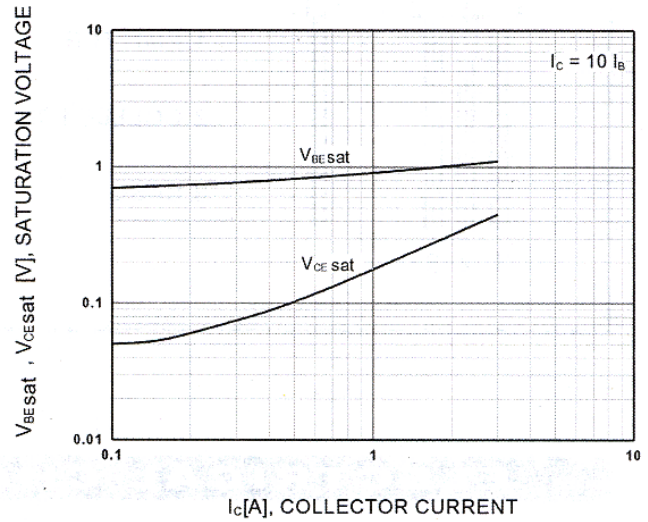
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BD233	$I_C=100\mu A, I_E=0$	45		V
	BD235		60		
	BD237		100		
Collector-emitter breakdown voltage	BD233	$I_C=10 mA, I_B=0$	45		V
	BD235		60		
	BD237		80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5		V
Collector cut-off current	BD233	I_{CBO}	$V_{CB}=45 V, I_E=0$	100	μA
	BD235		$V_{CB}=60 V, I_E=0$		
	BD237		$V_{CB}=100 V, I_E=0$		
Emitter cut-off current	I_{EBO}	$V_{EB}=5 V, I_C=0$		1	mA
DC current gain	$h_{FE(1)}$	$V_{CB}=2 V, I_C=150 mA$	40		
	$h_{FE(2)}$	$V_{CB}=2 V, I_C=1 A$	25		
Collector-emitter saturation voltage	V_{CEsat}	$I_C=1 A, I_B=100 mA$		0.6	V
Transition frequency	f_T	$V_{CE}=10V, I_C=250mA$ $f=10MHz$	3		MHz

Typical Characteristics

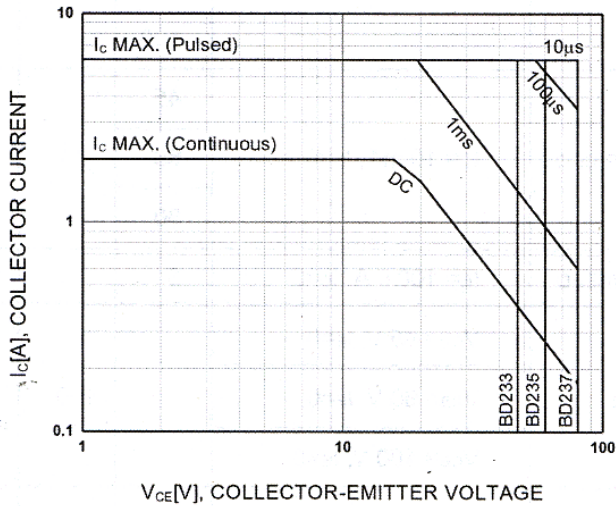
BD233/235/237



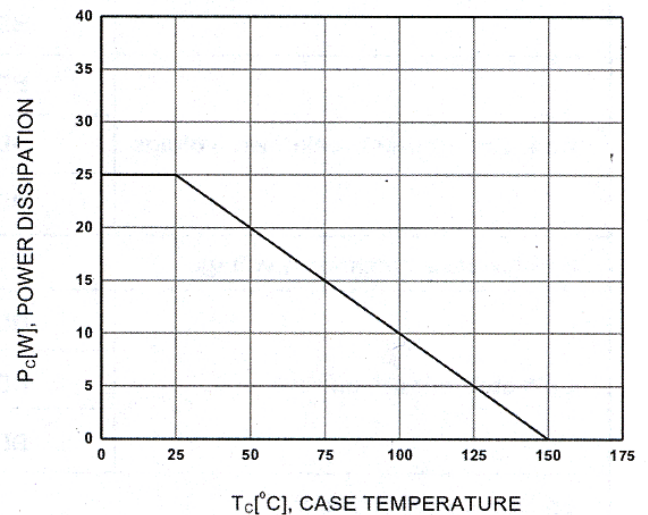
DC current Gain



**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Safe Operating Area



Power Derating