

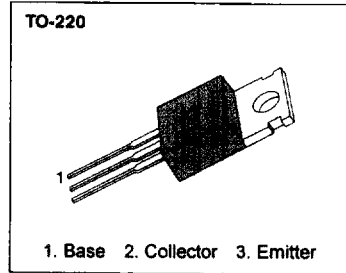
MEDIUM POWER LINEAR AND SWITCHING APPLICATIONS

LOW SATURATION VOLTAGE

• Complement to BD533, BD535 and BD537 respectively

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage : BD534	V_{CBO}	- 45	V
: BD536		- 60	V
: BD538		- 80	V
Collector Emitter Voltage : BD534	V_{CES}	- 45	V
: BD536		- 60	V
: BD538		- 80	V
Collector Emitter Voltage : BD534	V_{CEO}	- 45	V
: BD536		- 60	V
: BD538		- 80	V
Emitter Base Voltage	V_{EBO}	- 5	V
Collector Current (DC)	I_C	- 8	A
Emitter Current	I_E	- 8	V
Base Current	I_B	- 1	A
Collector Dissipation ($T_C=25^\circ C$)	P_C	- 50	W
Junction Temperature	T_J	- 150	$^\circ C$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ C$



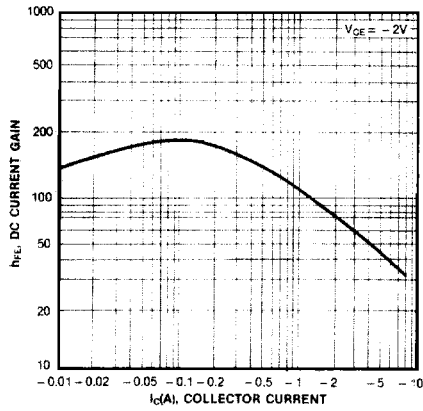
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ELECTRICAL CHARACTERISTICS ($T_C=25^\circ C$)

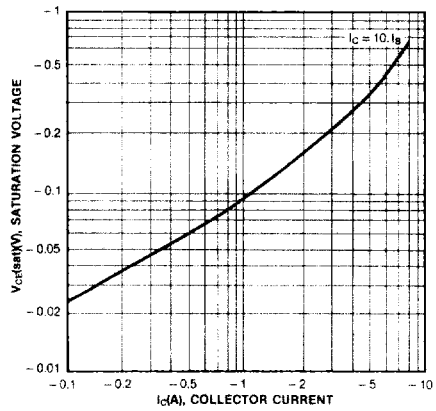
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current : BD534	I_{CBO}	$V_{CB} = - 45V, I_E = 0$			- 100	μA
: BD536		$V_{CB} = - 60V, I_E = 0$			- 100	μA
: BD538		$V_{CB} = - 80V, I_E = 0$			- 100	μA
Collector Cutoff Current : BD534	I_{CES}	$V_{CE} = - 45V, V_{BE} = 0$			- 100	μA
: BD536		$V_{CE} = - 60V, V_{BE} = 0$		1	- 100	μA
: BD538		$V_{CE} = - 80V, V_{BE} = 0$			- 100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = - 5V, I_C = 0$			- 1	mA
*DC Current Gain : BD534/536	h_{FE}	$V_{CE} = - 5V, I_C = - 10mA$	20			
: BD538			15			
: ALL DEVICE		$V_{CE} = - 2V, I_C = - 500mA$	40			
: BD534/536		$V_{CE} = - 2V, I_C = - 2A$	25			
: BD538			15			
h_{FE} Groups J : ALL DEVICE	h_{FE}	$V_{CE} = - 2V, I_C = - 2A$	30		75	
K : ALL DEVICE		$V_{CE} = - 2V, I_C = - A$	15			
		$V_{CE} = - 2V, I_C = - 2A$	40		100	
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = - 2A, I_B = - 0.2A$			- 0.8	V
		$I_C = - 6A, I_B = - 0.6A$		- 0.8		V
*Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = - 2V, I_C = - 2A$			- 1.5	V
Transition Frequency	f_T	$V_{CE} = - 1V, I_C = - 500mA$	3	12		MHz

* Pulse Test :PW =300uS, duty Cycle =1.5% Pulsed

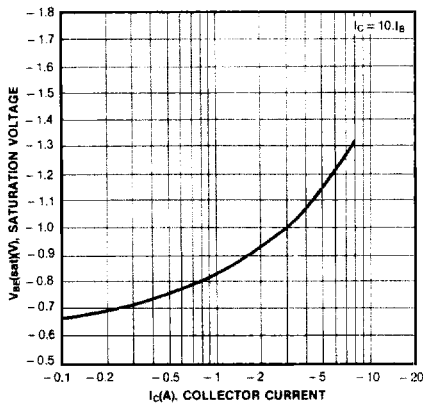
DC CURRENT GAIN



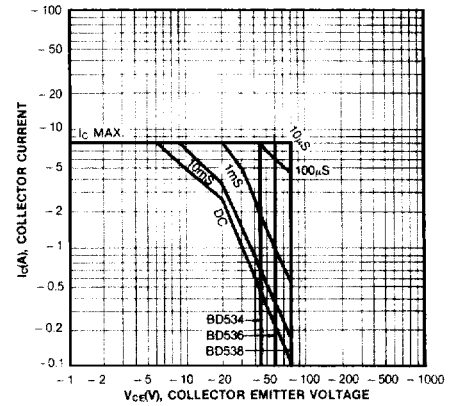
COLLECTOR EMITTER SATURATION VOLTAGE



BASE EMITTER SATURATION VOLTAGE



SAFE OPERATING AREA



POWER DERATING

