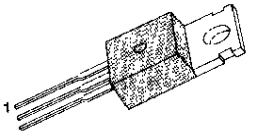
BD243/A/B/C NPN EPITAXIAL SILICON TRANSISTOR

MEDIUM POWER LINEAR AND SWITCHING APPLICATIONS

• Complement to BD244, BD244A, BD244B and BD244C respectively

TO-220



1.Base 2.Collector 3.Emitter

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage : BD243	V_{CBO}	45	V
: BD243A		60	V
: BD243B		80	V
: BD243C		100	V
Collector Emitter Voltage : BD243	V_{CEO}	45	V
: BD243A		60	V
: BD243B		80	V
: BD243C		100	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	6	A
Collector Current (Pulse)	I_C	10	A
Base Current	I_B	2	A
Collector Dissipation (T_C=25°C)	P_C	65	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-65 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_C=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
* Collector Emitter Sustaining Voltage : BD243	V_{CEO}(sus)	I_C=30mA, I_B=0	45			V
: BD243A			60			V
: BD243B			80			V
: BD243C			100			V
Collector Cutoff Current : BD243/243A	I_{CEO}	V_{CE} = 30V, I_B = 0			0.7	mA
: BD243B/243C		V_{CE} = 60V, I_B = 0			0.7	mA
Collector Cutoff Current : BD243	I_{CES}	V_{CE} = 45V, V_{BE} = 0			0.4	mA
: BD243A		V_{CE} = 60V, V_{BE} = 0			0.4	mA
: BD243B		V_{CE} = 80V, V_{BE} = 0			0.4	mA
: BD243C		V_{CE} = 100V, V_{BE} = 0			0.4	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0			1	mA
*DC Current Gain	h_{FE}	V_{CE} = 4V, I_C = 0.3A	30			
		V_{CE} = 4V, I_C = 3A	15			
*Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 6A, I_B = 1A			1.5	V
*Base Emitter On Voltage	V_{BE}(on)	V_{CE} = 4V, I_C = 6A			2	V

* Pulse Test :PW=300μs, duty Cycle<20% Pulsed

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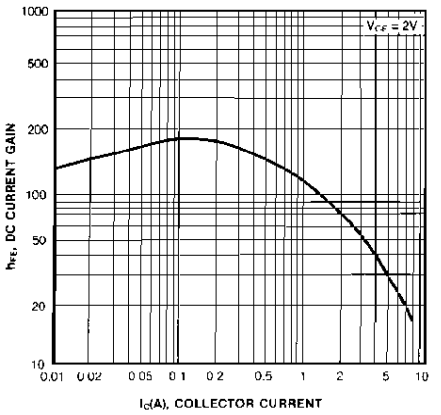
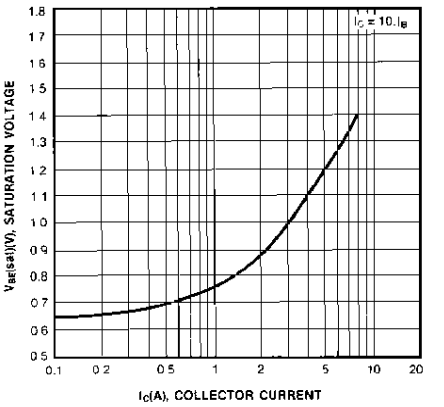
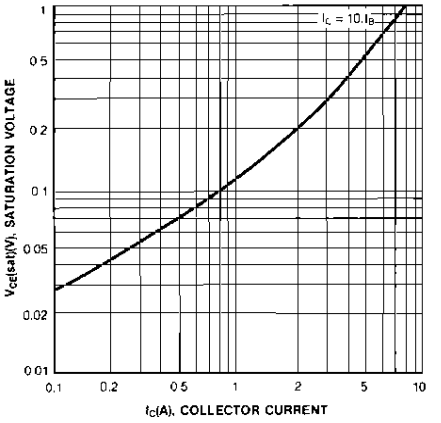
DC CURRENT GAIN



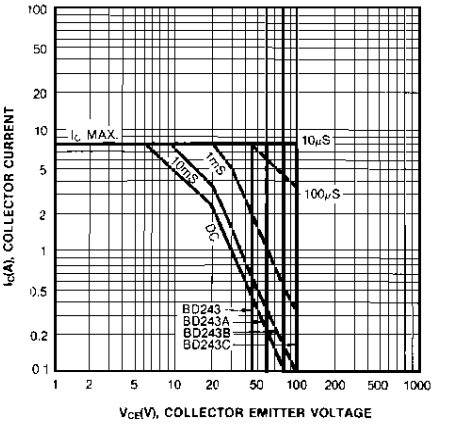
BASE EMITTER SATURATION VOLTAGE



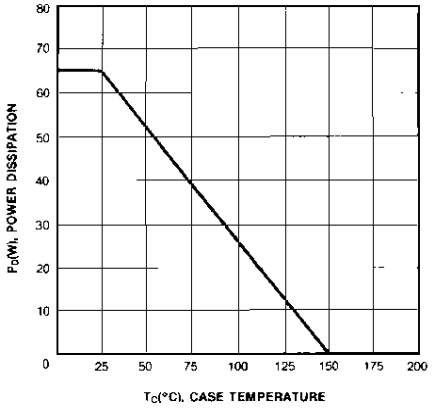
COLLECTOR EMITTER SATURATION VOLTAGE



SAFE OPERATING AREA



POWER DERATING



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