SILICON PLASTIC POWER TRANSISTOR
NPN BD243A/B/C
6A 65W

Technical Data

…designed for use in general-purpose switching and amplifier applications.

- ☞ Collector-Emitter Saturation Voltage-
  V_{CE}=1.5Vdc(Max)@I_C=6Adc
- ☞ Collector-Emitter Sustaining Voltage-
  VCEO(sus)=60/80/100Vdc(Min) BD243A/B/C
- ☞ TO-220 Package

MAXIMUM RATINGS

Rating	Symbol	BD243A	BD243B	BD243C	Unit
Collector- Emitter Voltage	V_{CEO}	60	80	100	Vdc
Collector – Base Voltage	V_{CB}	60	80	100	Vdc
Emitter Base Voltage	V_{EB}	5			Vdc
Collector Current – Continuos Peak	I_C	6 10			Adc
Base Current	I_B	2			Adc
Total Power Dissipation @ TC = 25°C Derate above 25°C	PD	65 0.52			Watts W/°C
Operating and Storage junction Temperature Range	Tj,Tstg	-65 to +150			°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Thermal resistance junction to case	R_{thjc}	1.92	°C/W

ELECTRICAL CHARACTERISTICS :[Tc = 25 °C unless otherwise noted]

Characteristic	Symbol	Min	Typ	Max	Unit
*** OFF CHARACTERISTICS :**					
Collector–Emitter Sustaining Voltage(1) [Ic =30 mAdc, I_B = 0] BD243A BD243B BD243C	$V_{CEO(sus)}$	 60 80 100			Vdc
Collector Cutoff Current [V_{CE} = 30 Vdc, I_B = 0] BD243A [V_{CE}=60Vdc,I_B=0] BD243B,BD243C	I_{CE0}			 0.7 0.7	mAdc
Collector Cutoff Current [V_{CE}=60Vdc, V_{BE} =0] BD243A [V_{CE}=80Vdc, V_{BE} =0] BD243B [V_{CE}=100Vdc,V_{BE} =0] BD243C	I_{CES}			 400 400 400	✪Adc
Emitter Cutoff Current [V_{EB} =5.0 Vdc , Ic = 0]	I_{EBO}			1	mAdc
*** ON CHARACTERISTICS (1):**					
DC Current Gain [Ic = 0.3Adc , V_{CE} = 4.0 Vdc] [Ic = 3Adc , V_{CE} = 4.0 Vdc]	h_{FE}	 30 15			
Collector-Emitter Saturation Voltage [Ic = 6Adc , I_B =1Adc]	$V_{CE(sat)}$			1.5	Vdc
Base-Emitter on Voltage [Ic =6 Adc , V_{CE}= 4V]	$V_{BE(on)}$			2.0	Vdc
DYNAMIC CHARACTERISTICS :					
Current Gain – Bandwidth Product [Ic=0.5Adc,V_{CE}=10Vdc,ftest=1.0 MHz]	f_T	3			MHz
Small-Signal Current Gain [I_C=0.5 Adc, V_{CE}=10 Vdc, f=1kHz]	hfe	20			

· (1) Pulse Test : Pulse Width <300μs , Duty Cycle < 2.0%