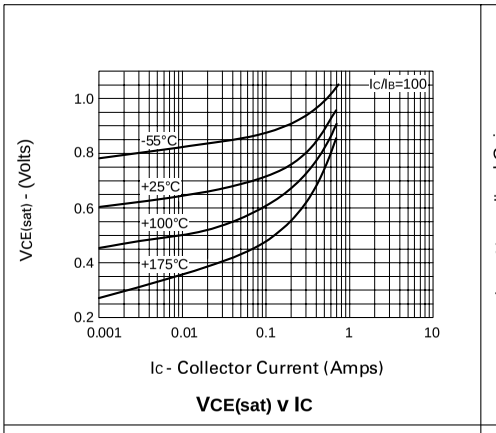
THE DATASHEET OF

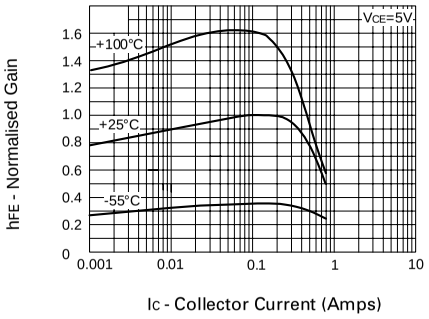
BCX38C

BCX38A/B/C

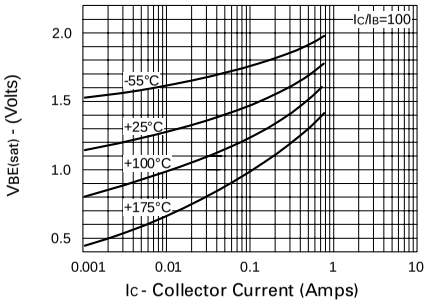
TYPICAL CHARACTERISTICS



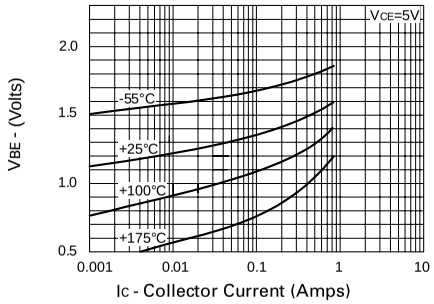
VCE(sat) v IC



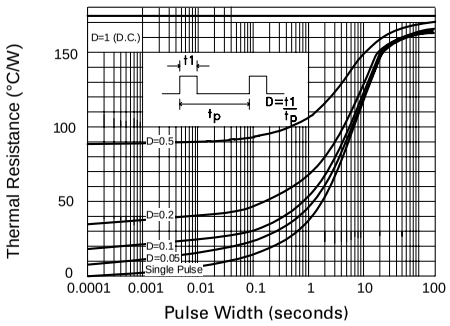
hFE v IC



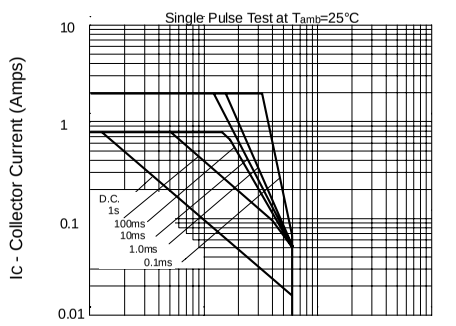
VBE(sat) v IC



VBE(on) v IC



Maximum transient thermal impedance



Safe Operating Area

NPN SILICON PLANAR ME
POWER DARLINGTON TRA

ISSUE 1 – MARCH 94

FEATURES

* 60 Volt V_{CEO}
* Gain of 10K at I_C=0.5 Amp
* P_{tot}=1 Watt

ABSOLUTE MAXIMUM RATINGS

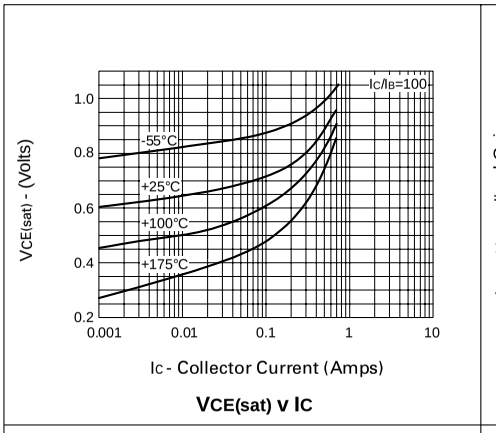
PARAMETER
Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Peak Pulse Current
Continuous Collector Current
Power Dissipation at T_{amb}=25°C
Operating and Storage Temperature R

ELECTRICAL CHARACTERISTICS

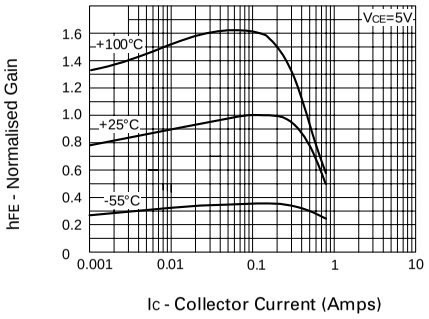
PARAMETER		SYMBOL	M
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	80
Collector-Emitter Sustaining Voltage		$V_{CEO(sus)}$	60
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	10
Collector Cut-Off Current		I_{CBO}	
Emitter Cut-Off Current		I_{EBO}	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	
Base-Emitter Turn-on Voltage		$V_{BE(on)}$	
Static Forward Current Transfer Ratio	BCX38A	h_{FE}	500 100
	BCX38B		200 400
	BCX38C		500 100

BCX38A/B/C

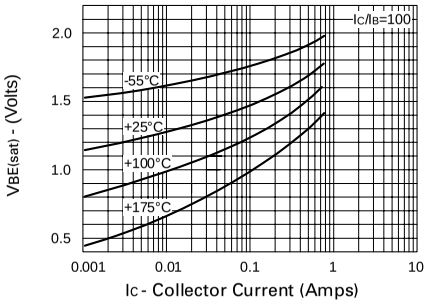
TYPICAL CHARACTERISTICS



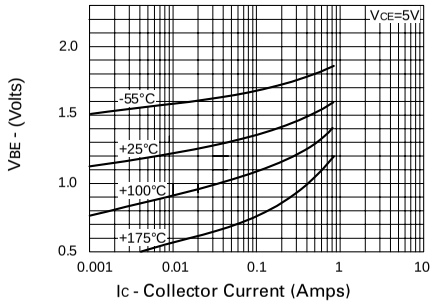
VCE(sat) v IC



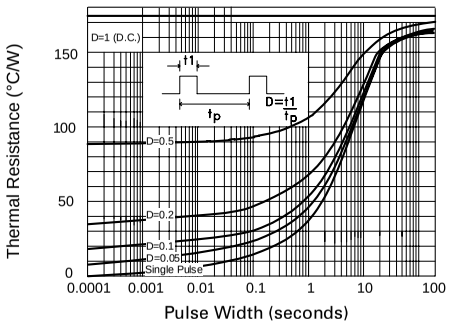
hFE v IC



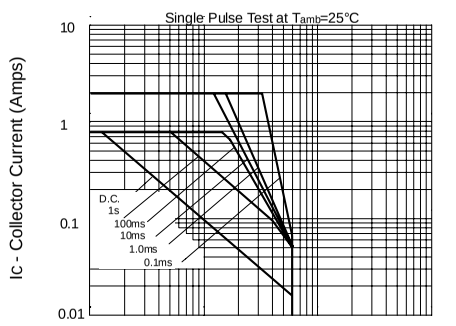
VBE(sat) v IC



VBE(on) v IC



Maximum transient thermal impedance



Safe Operating Area

NPN SILICON PLANAR ME
POWER DARLINGTON TRA

ISSUE 1 – MARCH 94

FEATURES

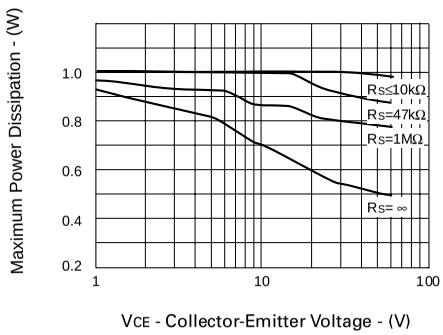
* 60 Volt V_{CEO}
* Gain of 10K at I_C=0.5 Amp
* P_{tot}=1 Watt

ABSOLUTE MAXIMUM RATINGS

PARAMETER
Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Peak Pulse Current
Continuous Collector Current
Power Dissipation at T_{amb}=25°C
Operating and Storage Temperature R

ELECTRICAL CHARACTERISTICS

PARAMETER		SYMBOL	M
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	80
Collector-Emitter Sustaining Voltage		$V_{CEO(sus)}$	60
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	10
Collector Cut-Off Current		I_{CBO}	
Emitter Cut-Off Current		I_{EBO}	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	
Base-Emitter Turn-on Voltage		$V_{BE(on)}$	
Static Forward Current Transfer Ratio	BCX38A	h_{FE}	500 100
	BCX38B		200 400
	BCX38C		500 100



The maximum permissable operational temperature can be obtained using the equation:

$$T_{amb(max)} = \frac{Power(max) - Power(actual)}{0.0057} + 25°C$$

$T_{amb(max)}$= Maximum operating ambient temperature

Power (max) = Maximum power dissipation figure, for a given V_{CE} and source resistance (R_S)

Power (actual) = Actual power dissipation in users circuit

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View BCX38C on WIN SOURCE
- Diodes Incorporated Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management