

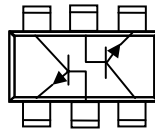


**BC846S**  
**BC846BS**

**Dual NPN Small  
Signal Transistor  
200mW**

**Features**

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Ideally Suited for Automatic Insertion
- Ultra-Small Surface Mount Package
- For Switching and AF Amplifier Applications
- Marking: 4Ft
- Halogen free available upon request by adding suffix "-HF"

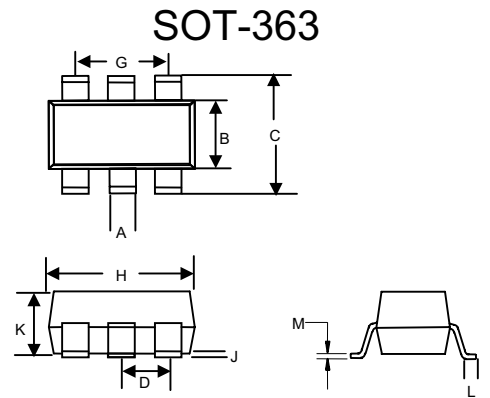


**Mechanical Data**

- Case: SOT-363, Molded Plastic
- Polarity: See Diagram

**Maximum Ratings @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Value	Units
<b>OFF CHARACTERISTICS</b>			
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	65	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	80	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage	6.0	Vdc
$I_C$	Collector Current	100	mAdc
$P_d$	Power Dissipation @ $T_A=25^\circ\text{C}$	200	mw
$T_J, T_{STG}$	Operating & Storage Temperature	-55~+150	°C

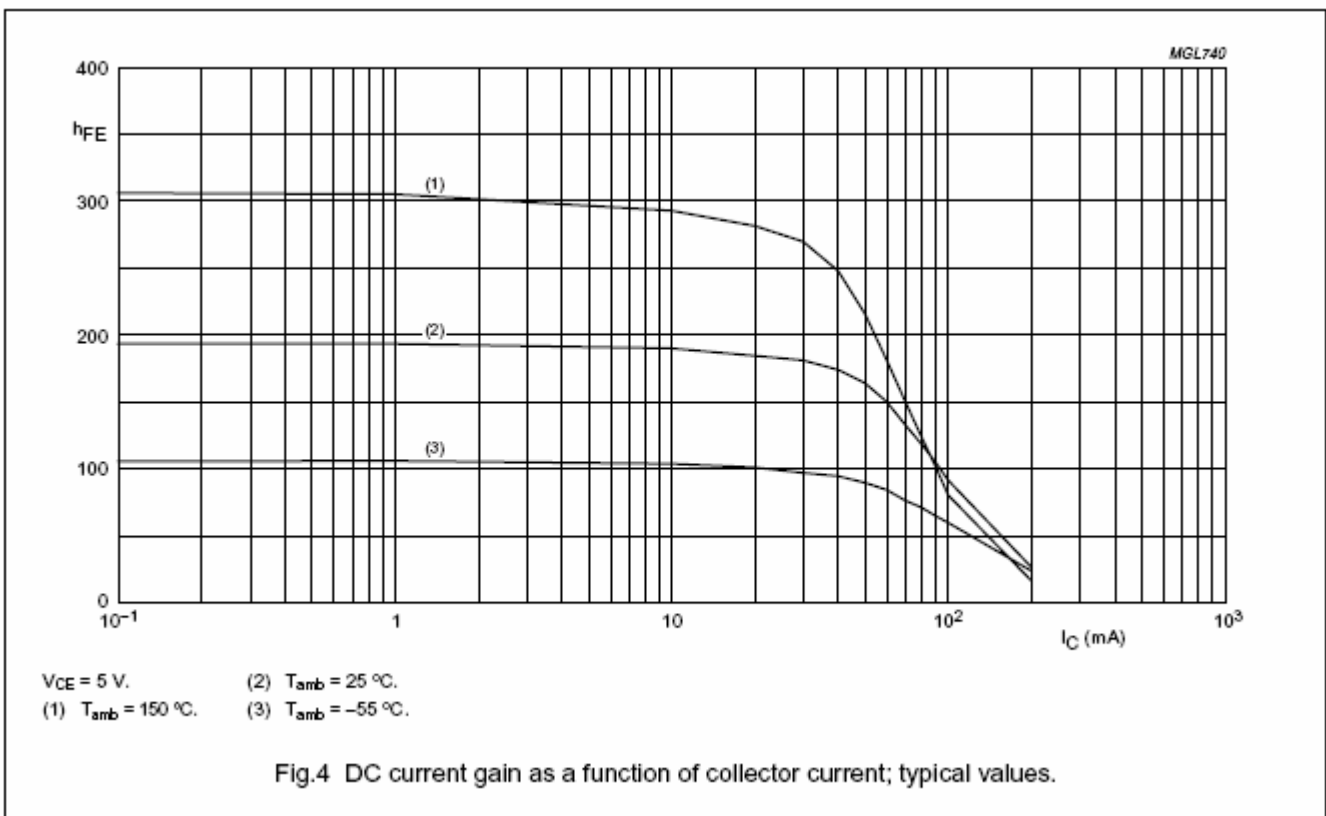
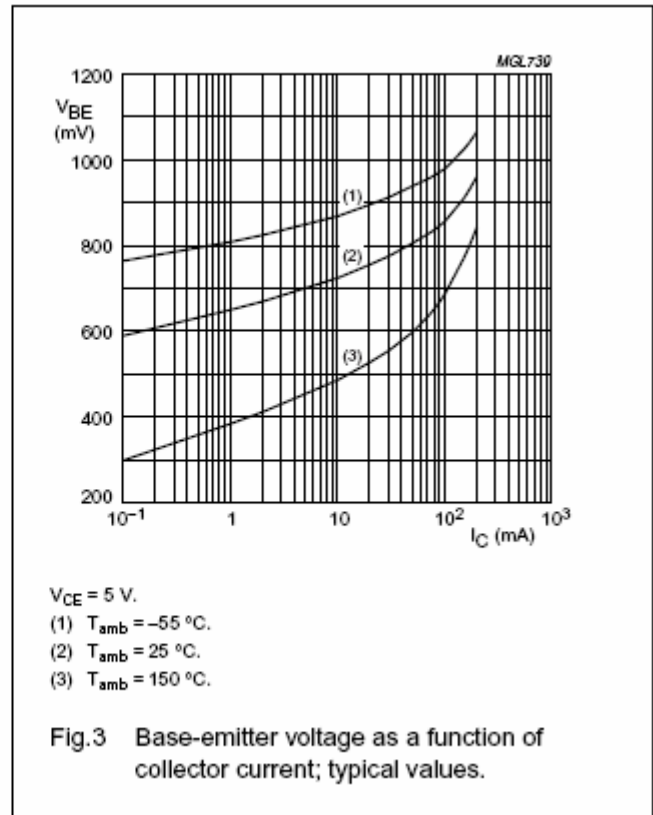
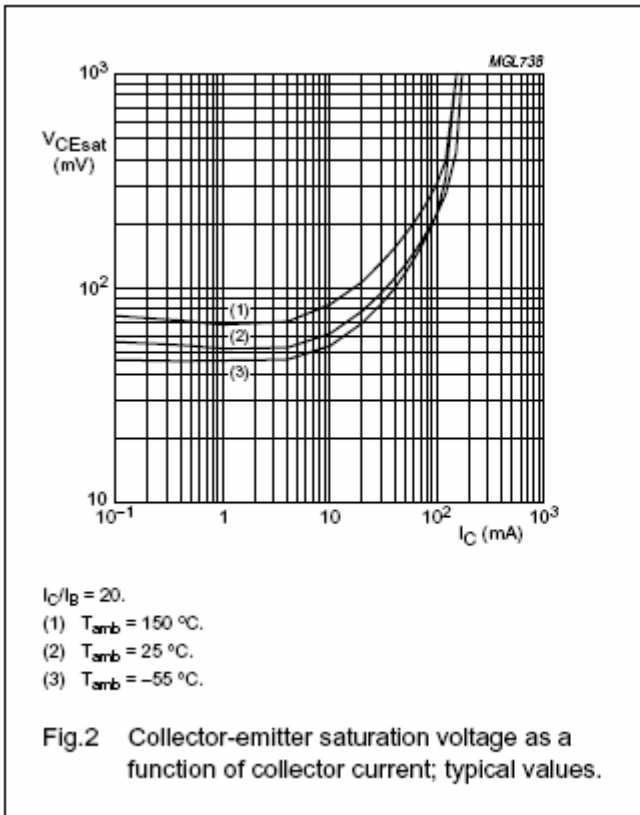


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.079	.096	2.00	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Min	Typ	Max	Units	Test Condition
<b>OFF CHARACTERISTICS</b>						
h <sub>FE</sub>	DC Current Gain	BC846S	110	---	---	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2mA
		BC846BS	200	---	450	
V <sub>CE(SAT)</sub>	Collector-Emitter Saturation Voltage	---	---	100 300	mV	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA I <sub>C</sub> =100mA, I <sub>B</sub> =5.0mA
V <sub>BE(ON)</sub>	Base-Emitter Voltage	---	700	---	mV	
I <sub>CBO</sub>	Collector-Cutoff Current	---	---	15	nA	V <sub>CB</sub> =30V, I <sub>E</sub> =0
f <sub>T</sub>	Gain Bandwidth Product	---	100	---	MHz	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=100MHz
C <sub>OB</sub>	Collector-output Capacitance	---	1.5	---	pF	V <sub>CB</sub> =10V, f=1.0MHz

## Typical Characteristics



**Ordering Information :**

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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