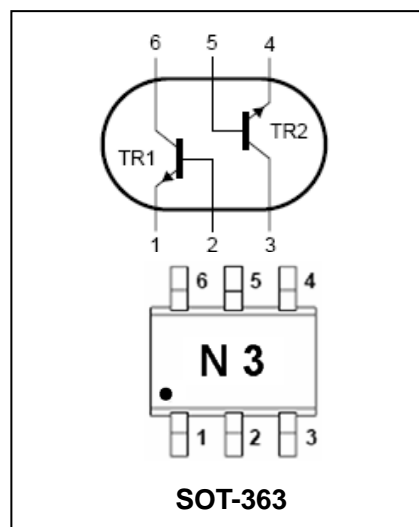


NPN General Purpose Double Transistor

BC817DS

FEATURES

- High current(500mA).
- 200mW total power dissipation.
- Replaces two SOT323 packaged transistors.
On same PCB area.



APPLICATIONS

- General purpose switching and amplification.
- Puse-pull amplifiers.
- Multi-phase stepper motor drivers.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC817DS□	N3	SOT-363

□: none is for Lead Free package;
“G” is for Halogen Free package.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
I_{CM}	Peak Collector Cuurent	1	A
I_{BM}	Peak Base Current	200	mA
P_{tot}	Total Power Dissipation	200	mW
T_{amb}	Operating Ambient Temperature	-65 to +150	°C
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	°C

NPN General Purpose Double Transistor

BC817DS

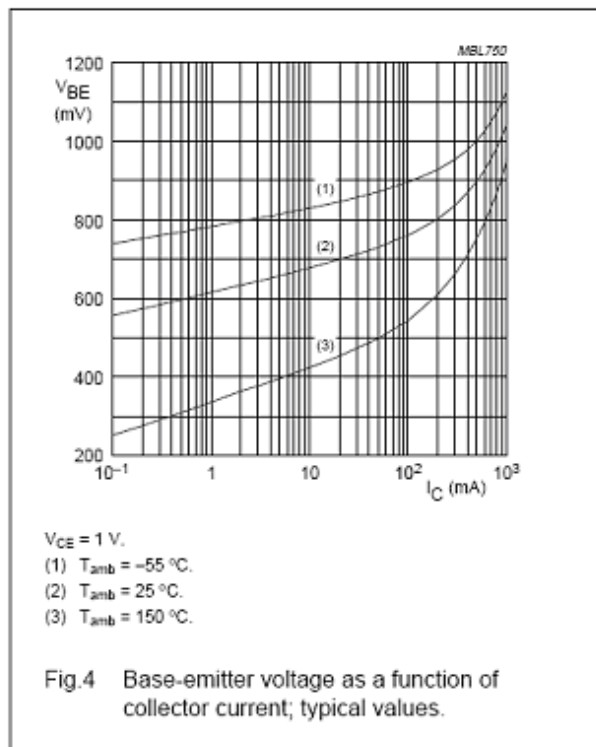
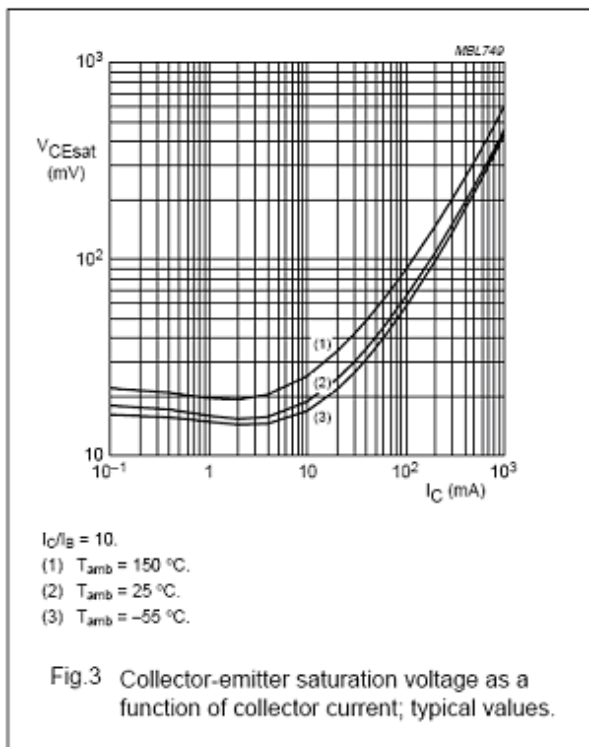
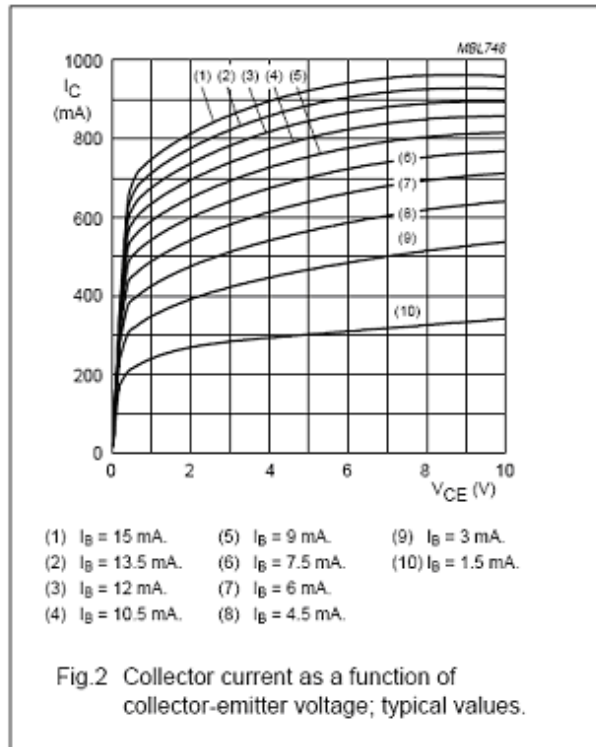
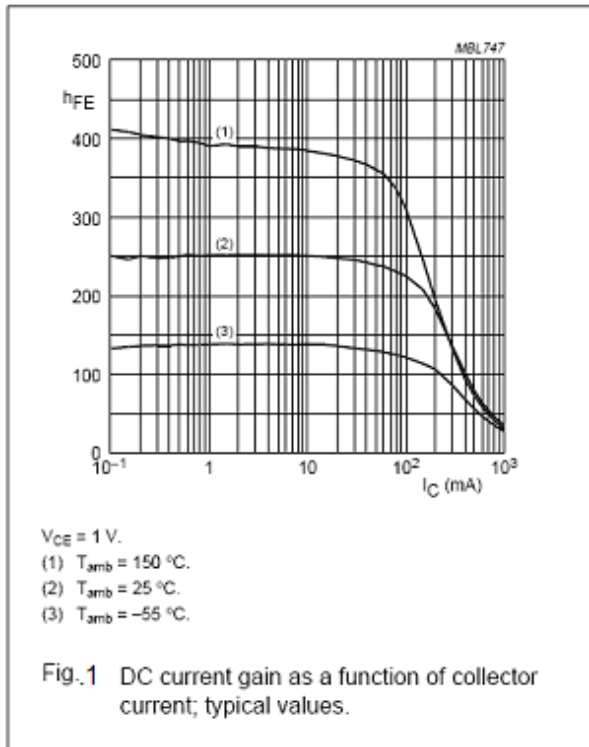
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$ $I_E=0$	50	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA$ $I_B=0$	45	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$ $I_C=0$	5	-	-	V
Collector-base cut-off current	I_{CBO}	$V_{CB}=20V$ $I_E=0$ $V_{CB}=20V$ $I_E=0$ $T_j=150^\circ C$	-	-	100 5	nA μA
Emitter-base cut-off current	I_{EBO}	$V_{EB}=5V$ $I_C=0$	-	-	100	nA
DC current gain	h_{FE}	$V_{CE}=1V$ $I_C=100mA$ $V_{CE}=1V$ $I_C=500mA$	160 40	-	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$	-	-	0.7	V
Base-emitter on voltage	V_{BE}	$I_C=500mA$ $V_{CE}=1.0V$	-	-	1.2	V
Transition frequency	f_T	$V_{CB}=5.0V$, $I_C=10mA$, $f=100MHz$	100	-	-	MHz
Transition capacitance	C_c	$V_{CB}=10V$, $f=1.0MHz$	-	5	-	pF

NPN General Purpose Double Transistor

BC817DS

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



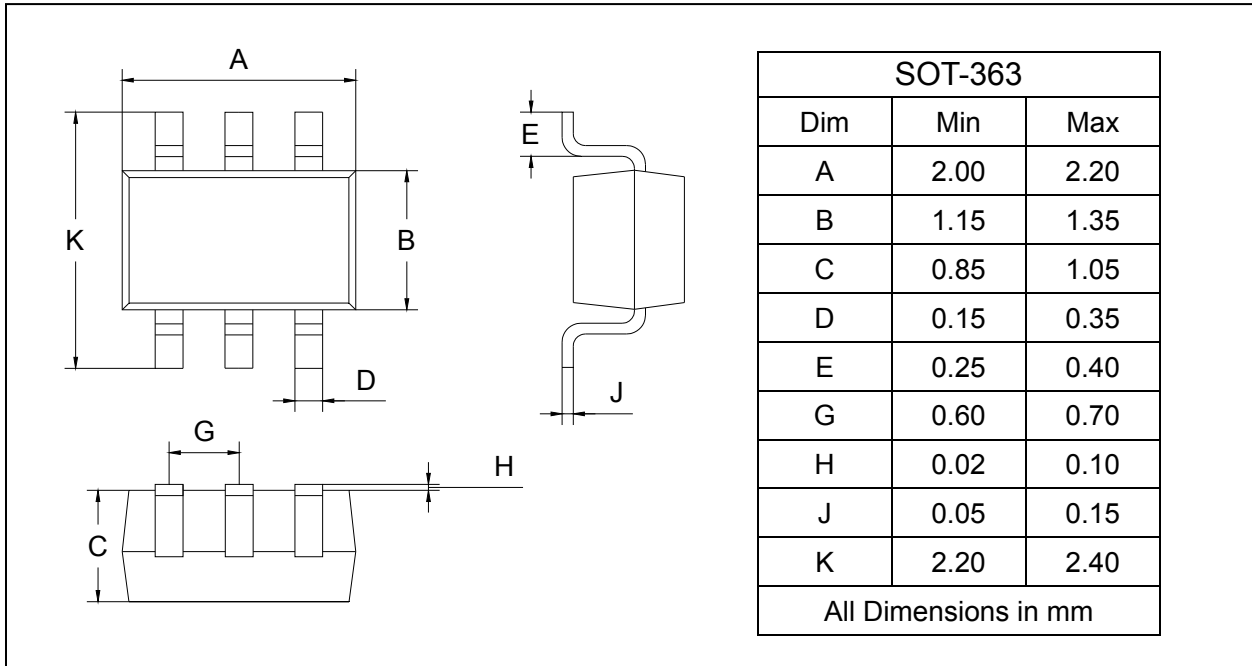
NPN General Purpose Double Transistor

BC817DS

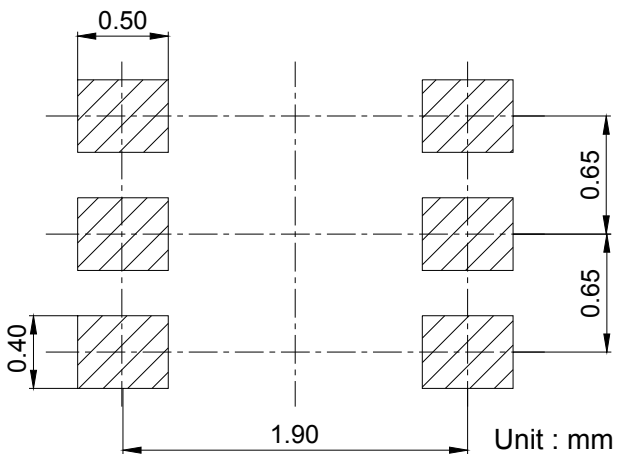
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BC817DS	SOT-363	3000/Tape&Reel