

Dual NPN Small Signal Surface Mount Transistor

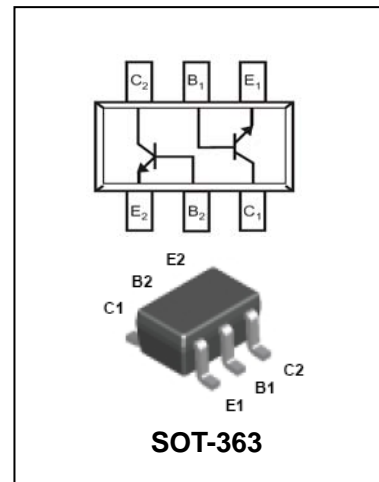
BC847S

FEATURES

- Epitaxial planar die construction.
- Ultra-small surface mount package.



Lead-free



APPLICATIONS

- Dual NPN small signal surface mount transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC847S	1C	SOT-363

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	6	V
I_C	Collector Current -Continuous	200	mA
P_D	Power Dissipation Derate above 25°C	300	mW
		2.4	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	415	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C

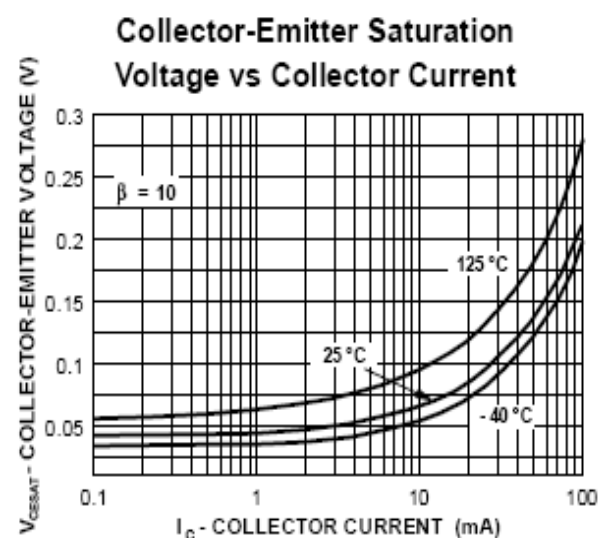
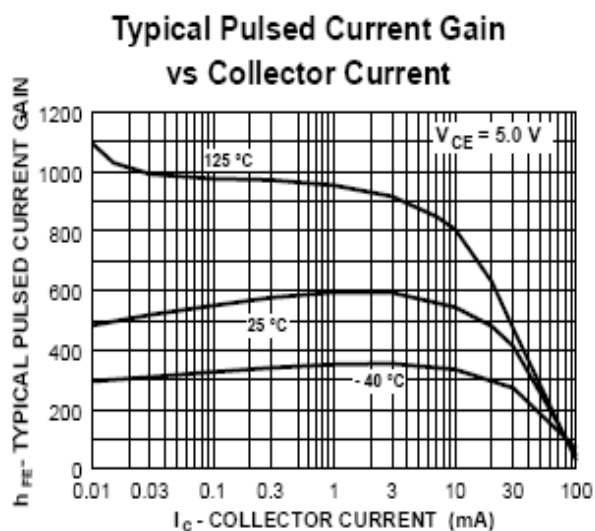
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

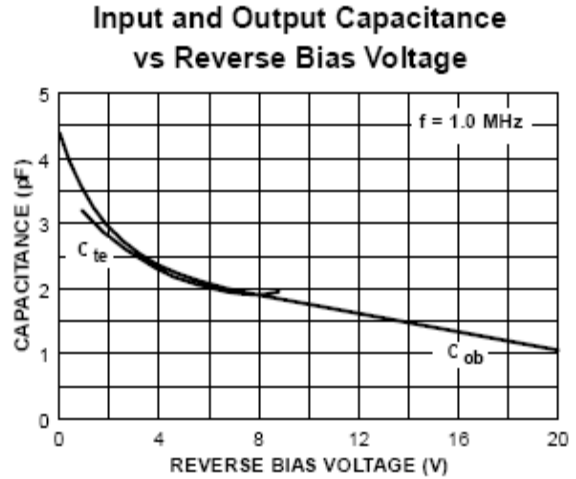
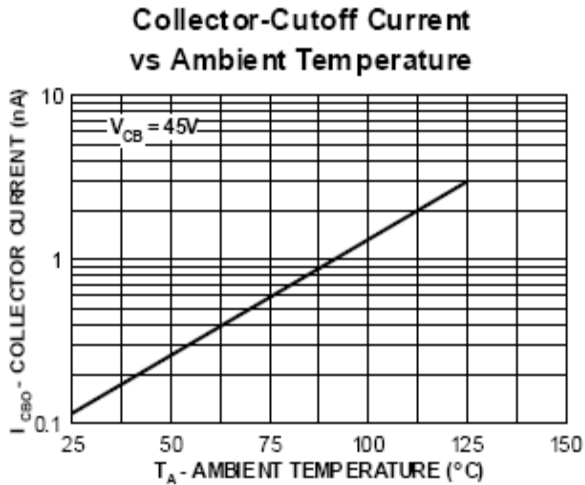
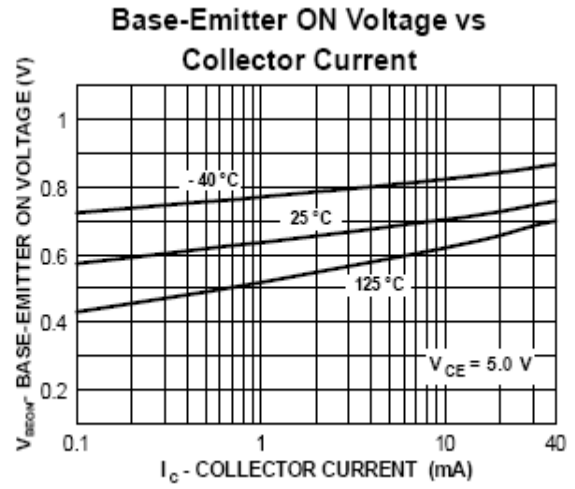
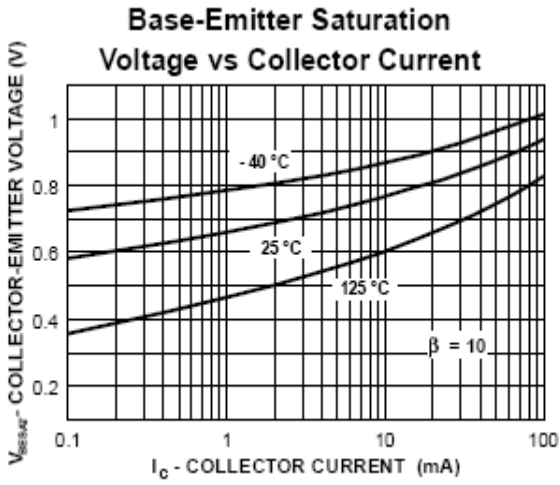
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$ $I_E=0$	50	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA$ $I_B=0$	45	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$ $I_C=0$	6	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=30V$ $I_E=0$ $V_{CB}=30V$ $I_E=0$ $T_A=150^\circ C$	-	15 5.0	nA μA
DC current gain	h_{FE}	$V_{CE}=5V$ $I_C=2.0mA$	110	630	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=0.5mA$ $I_C=100mA$ $I_B=5.0mA$	-	0.25 0.65	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C=2.0mA$, $V_{CE}=5.0V$ $I_C=10mA$, $V_{CE}=5.0V$	0.58 -	0.7 0.77	V
Transition frequency	f_T	$V_{CE}=5.0V$, $I_C=20mA$, $f=100MHz$	200		MHz
Output Capacitance	C_{obo}	$V_{CB}=10V$, $f=1.0MHz$, $I_E=0$	-	2	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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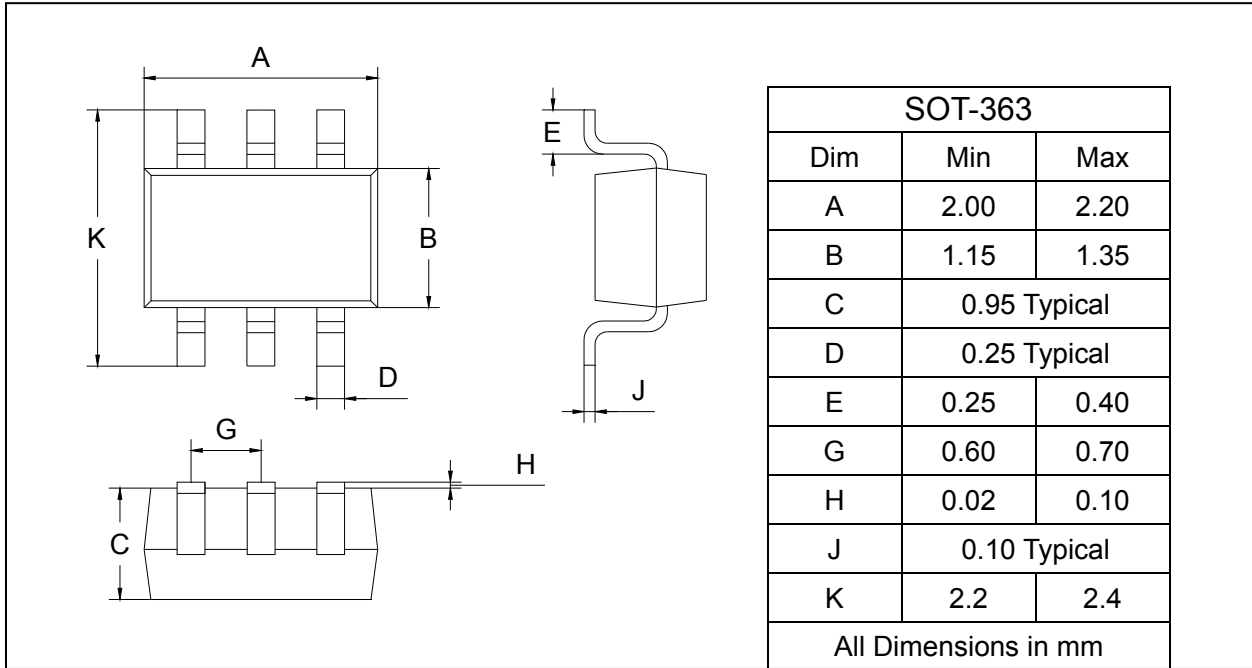
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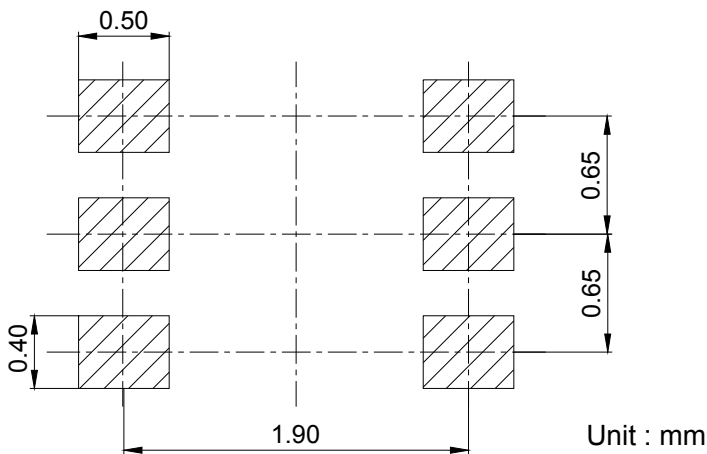
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BC847S	SOT-363	3000/Tape&Reel