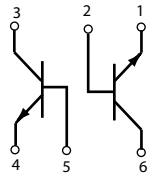
WEITRON

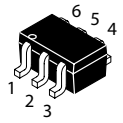
BC847S

Dual General Purpose Transistor
NPN Silicon

Pb **Lead(Pb)-Free**



NPN+NPN



SOT -363(SC-88)

Maximum Ratings

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	45	V
Collector-Base Voltage	V_{CBO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	200	mA

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation TA=25°C	P_D	200	mW
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Device Marking

BC847S=1C

Electrical Characteristics (TA=25°C Unless Otherwise noted)

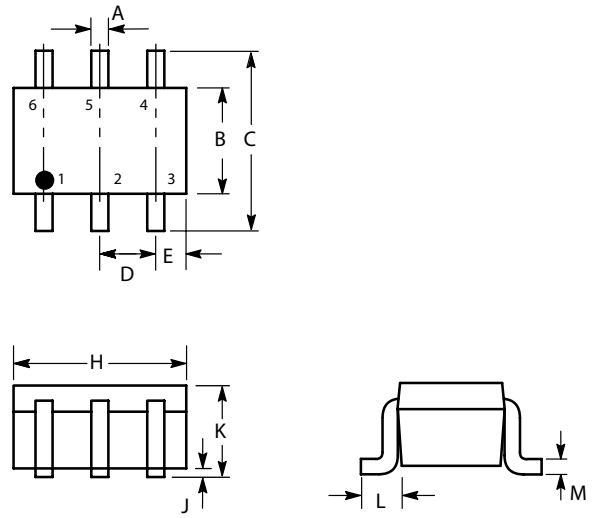
Characteristics	Symbol	Min	Max	Unit
Off Characteristics				
Collector-Emitter Breakdown Voltage (I_C=10mA , I_B=0)	V(BR)CEO	45	-	V
Collector-Base Breakdown Voltage (I_C=10 μA , I_E=0)	V(BR)CBO	50	-	V
Emitter-Base Breakdown Voltage (I_E=10 μA , I_C=0)	V(BR)EBO	6	-	V

Electrical Characteristics (T_A=25°C unless otherwise noted) (Countinued)

Characteristics	Symbol	Min	TYP	Max	Unit
On Characteristics					
DC Current Gain (I_C= 2 mA , V_{CE}= 5 V)	h_{FE}	110	- -	630	-
Collector-Emitter Saturation Voltage (I_C= 10 mA , I_B= 0.5mA) (I_C= 100mA , I_B= 5 mA)	$V_{CE(sat)}$	- -	- -	0.25 0.65	V
Base-Emitter Saturation Voltage (V_{CE}= 5 V , I_C= 2mA) (V_{CE}= 5 V , I_C=10 mA)	$V_{BE(sat)}$	- -	- -	0.7 0.77	V
Small-signal Characteristics					
Current-Gain-Bandwidth Product (V_{CE}= 5 V , I_C= 20 mA , f=100MHz)	f_T	-	200	-	MHz
Output Capacitance (V_{CB}= 10 V , I_E=0, f=1 MHz)	C_{obo}	-	2	-	pF

SOT-363 Package Outline Dimensions

Unit:mm



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 REF	
E	0.30	0.40
H	1.80	2.20
J	-	0.10
K	0.80	1.10
L	0.25	0.40
M	0.10	0.25