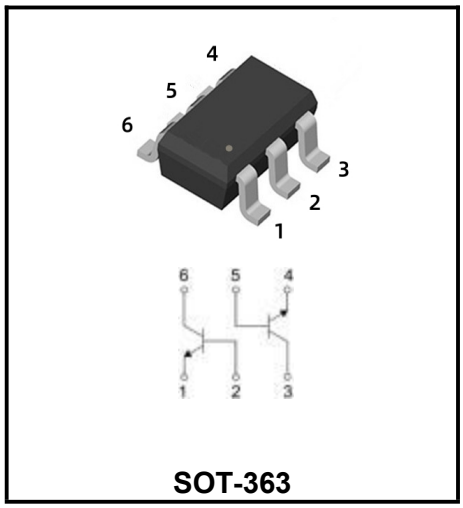
BC847ADW/BC847BDW/BC847CDW SOT-363

Plastic-Encapsulate Transistors

DUAL TRANSISTOR (NPN+NPN)



SOT-363

APPLICATION

This device is designed for general purpose amplifier applications

Marking Code	
BC847ADW	1Et
BC847BDW	1Ft
BC847CDW	1Gt

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	100	mA
Power Dissipation	P_D	200	mW
Thermal Resistance. Junction to Ambient	$R_{\theta JA}$	625	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_e=10μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=30V,I_E=0			15	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			15	
DC current gain*	h_{FE}	V_{CE}=5V,I_C=2mA A B C	110 200 420		220 450 800	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	I_C=10mA,I_B=0.5mA			0.25	V
	$V_{CE(sat)(2)}$	I_C=100mA,I_B=5mA			0.65	V
Base-emitter voltage	$V_{BE(1)}$	V_{CE}=5V,I_C=2mA	0.58		0.7	V
	$V_{BE(2)}$	V_{CE}=5V,I_C=10mA			0.77	V
Transition frequency	f_T	V_{CE}=5V,I_C=20mA ,f=100MHz		200		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		2		pF

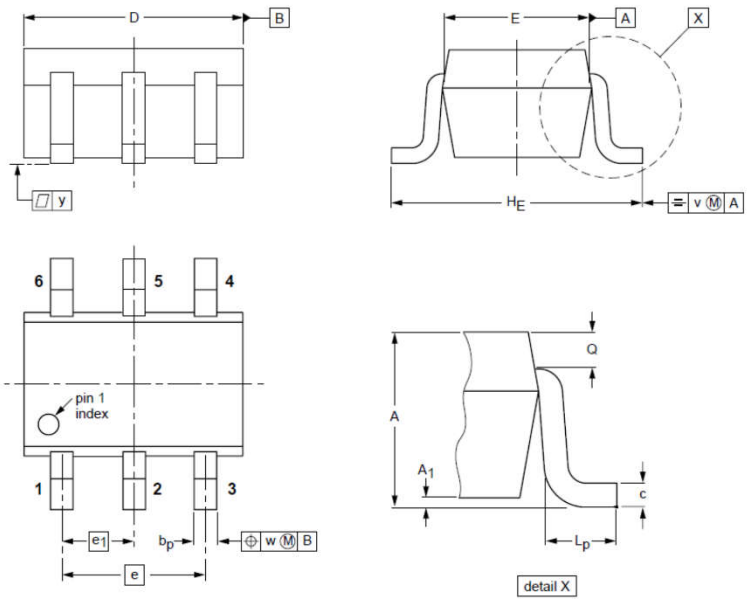
*pulse test: Pulse Width ≤300μs, Duty Cycle≤ 2.0%.

Ordering information

Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel,7”reel	3000PCS/Reel 120000PCS/Carton

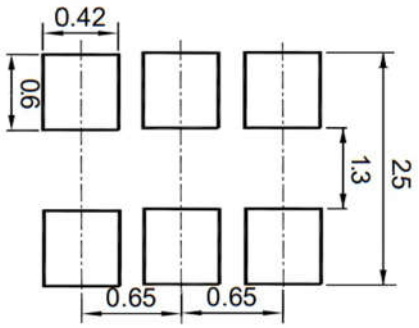
Package Dimensions

SOT-363



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	-	0.1	-	3.94
bp	0.20	0.30	7.87	11.81
c	0.10	0.25	3.94	9.84
D	1.8	2.2	70.87	86.61
E	1.15	1.35	45.28	53.15
e	1.3		51.18	
e1	0.65		25.6	
HE	2.0	2.2	78.74	86.6
Lp	0.15	0.45	5.90	17.71
Q	0.15	0.25	5.90	9.84
v	0.2		7.78	
w	0.2		7.78	
y	0.1		3.94	

The recommended mounting pad size



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