



BC847BSQ

Maximum Ratings (Ta=25°C unless otherwise specified) Q1&Q2-NPN

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	$I_C=10mA, I_E=0$	50
Collector-Emitter Voltage	V_{CEO}	V	$I_C=10mA, I_B=0$	45
Emitter-Base Voltage	V_{EBO}	V	$I_E=10mA, I_C=0$	6
Collector Current -Continuous	I_C	mA		100
Total Device Dissipation (*)	P_C	mW		200
Thermal Resistance Junction to Ambient (*)	R_{thJA}	K/W		625
Junction Temperature	T_j			-55 to +150
Storage Temperature	TSTG			-55 to +150

(*) Device mounted on FR-4 PCB 1.0 x 1.0 x 0.0625 inch.

Electrical Characteristics (Ta=25°C unless otherwise specified) Q1&Q2-NPN

	Symbol	Unit		Min	TYP	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=10mA, I_E=0$	50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=10mA, I_B=0$	45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=10mA, I_C=0$	6		
Collector cut-off current	I_{CBO}	nA	$V_{CB}=30V, I_E=0$			100
Collector cut-off current	I_{EBO}	nA	$V_{EB}=5V, I_C=0$			100
DC current gain	h_{FE}		$V_{CE}=5V, I_C=2mA$	200		450
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=10mA, I_B=0.5mA$			0.25
			$I_C=100mA, I_B=5mA$			0.65
Base-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=10mA, I_B=0.5mA$			1.05
			$I_C=100mA, I_B=5mA$			1.1

Transition frequency

Ft



■ Characteristics (Typical) Q1&Q2-NPN

Fig.2 - DC Current Gian

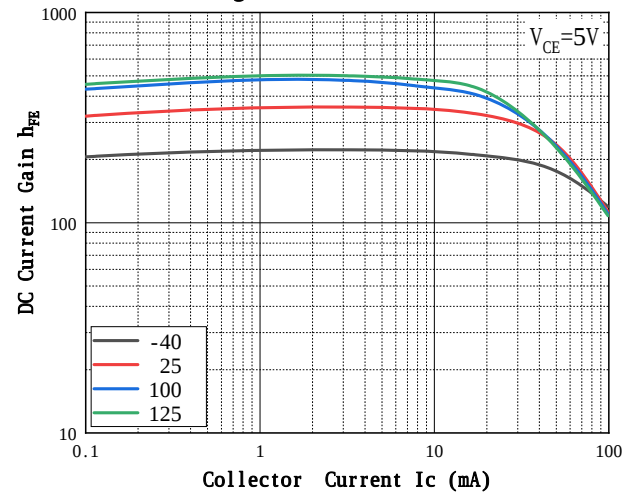


Fig.3 - Collect-Emittor Saturation Voltage

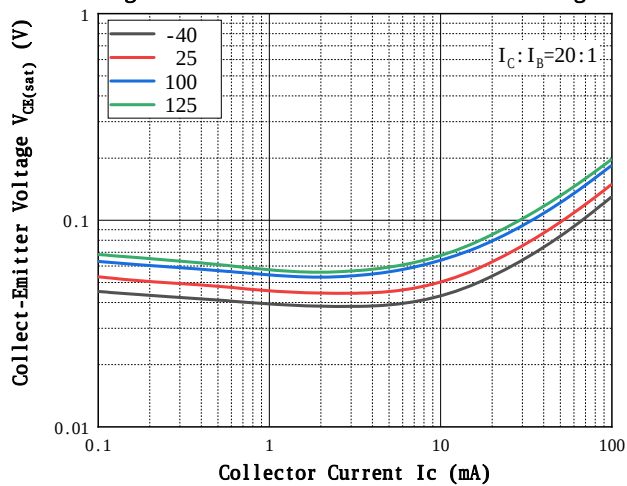


Fig.4 - Base-Emittor Voltage

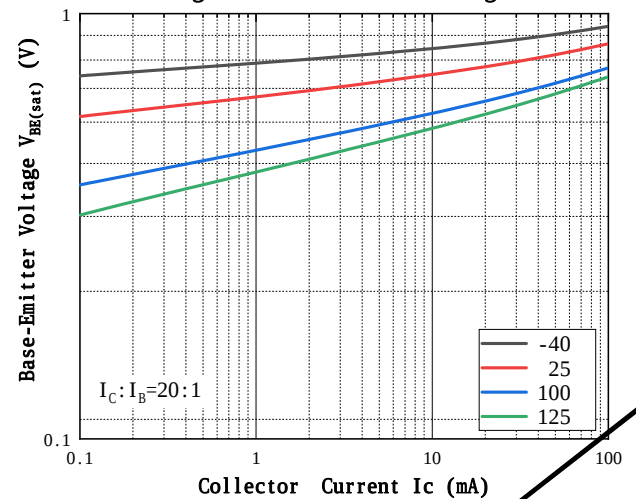
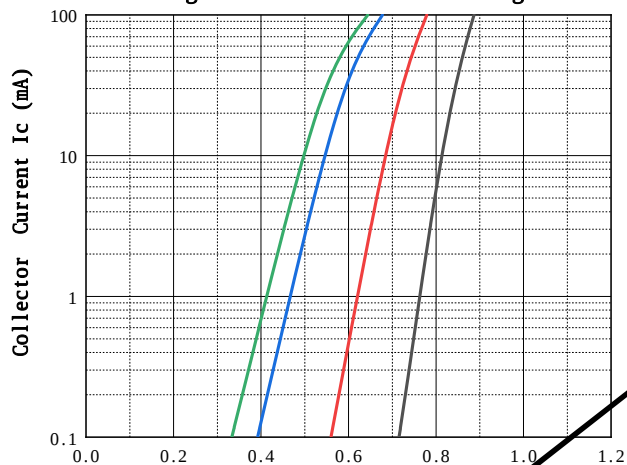
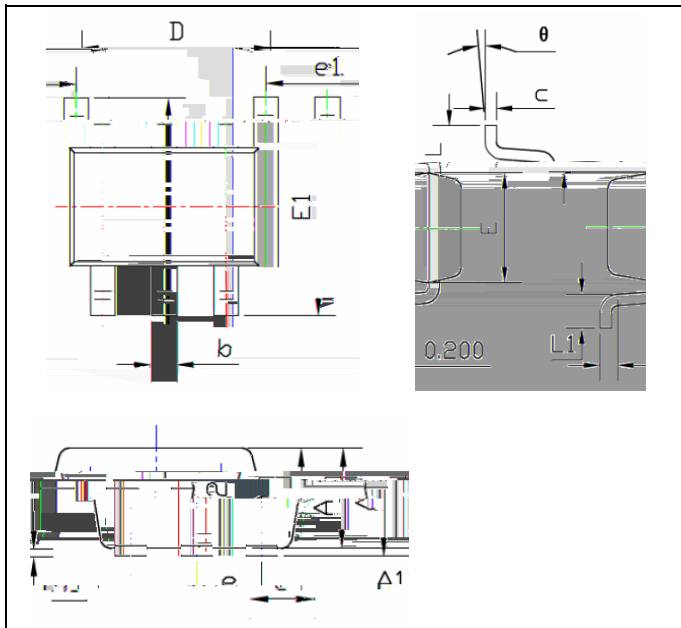


Fig.5 - Base-Emittor On Voltage



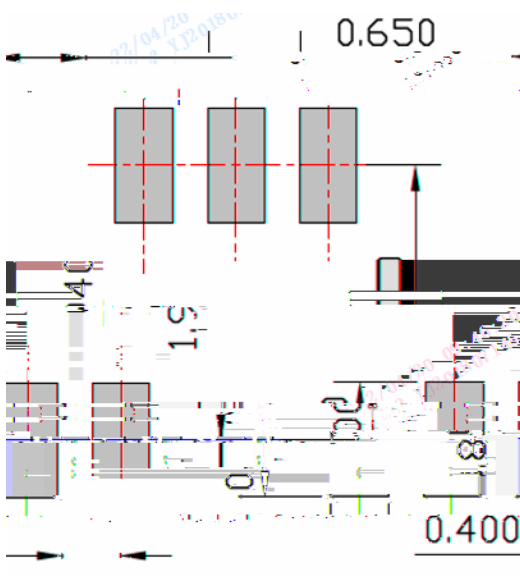


ΩSOT-363 Package Outline Dimensions



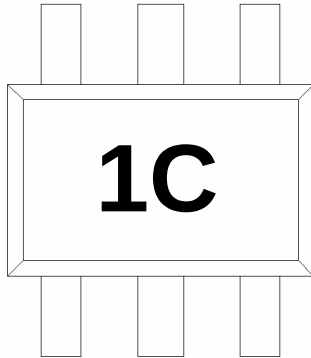
DIMENSIONS				
PACKAGE KEY	SYMBOL	INCHES	MILLIMETERS	
MAX	A	0.035	0.900	
MIN	A1	0.006	0.150	
MAX	B	0.043	1.100	
MIN	B1	0.004	0.100	
MAX	C	0.035	0.900	
MIN	C1	0.006	0.150	
MAX	D	0.071	1.800	
MIN	D1	0.087	2.200	
MAX	E	0.045	1.150	
MIN	E1	0.053	1.350	
MAX	F	0.085	2.150	
MIN	F1	0.096	2.450	
MAX	G	0.650 TYP	16.510	
MIN	G1	0.026 TYP	0.660	
MAX	H	0.010	0.254	
MIN	H1	0.018	0.457	
MAX	I	0.260	6.600	
MIN	I1	0.460	11.680	

■SOT-363 Suggested Pad Layout





Ω Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. 1C is Marking Code
4. Body color: Black



Disclaimer

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