

MSKSEMI

SEMICONDUCTOR



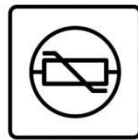
ESD



TVS



TSS



MOV

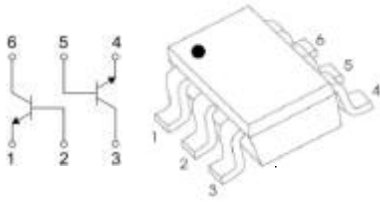


GDT



PLED

Product data sheet



SOT-363

DUAL TRANSISTOR (NPN+NPN)

APPLICATION

This device is designed for general purpose amplifier applications

MARK:1Ft

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

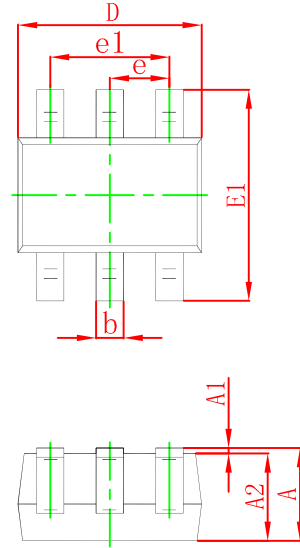
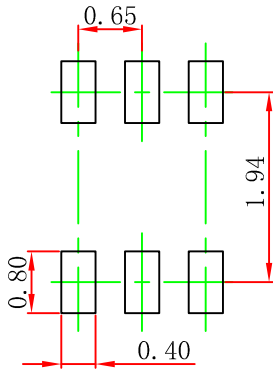
Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	45	
V _{EBO}	Emitter-Base Voltage	6	
I _c	Collector Current-Continuous	100	mA
P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance. Junction to Ambient	625	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~+150	

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

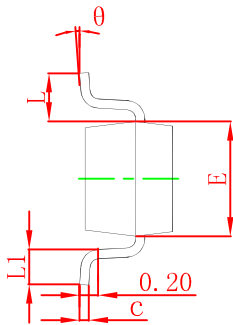
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CB0}	I _c =10μA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c =1mA, I _B =0	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _c =0	6			V
Collector cut-off current	I _{CB0}	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	110	220	
			B	200	450	
			C	420	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%.

SOT-363



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

REEL SPECIFICATION

P/N	PKG	QTY
BC847S	SOT-363	3000

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