

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

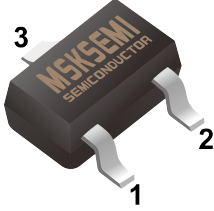
BC807-16W/25W/40W

Product specification

FEATURES

- Ideally suited for automatic insertion
- Epitaxial planar die construction
- Complementary to BC817W

Reference News

PACKAGE OUTLINE	Rank	BC807-16W	BC807-25W	BC807-40W
 SOT-323	Range	100-250	160-400	250-600
	MARKING	5A	5B	5C

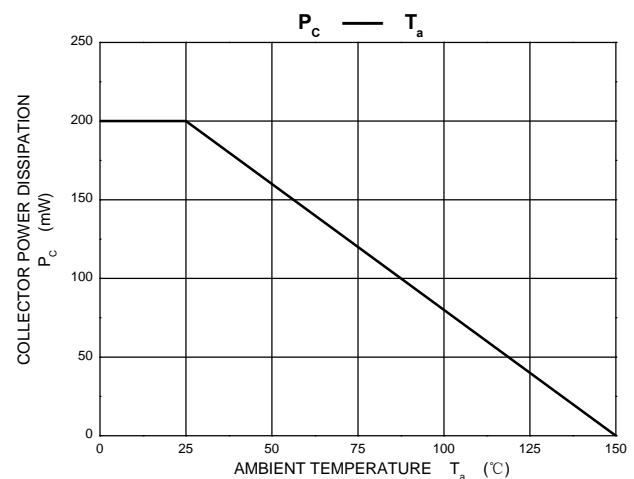
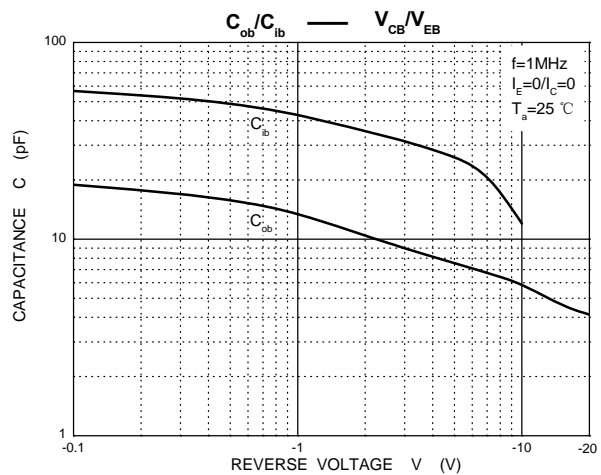
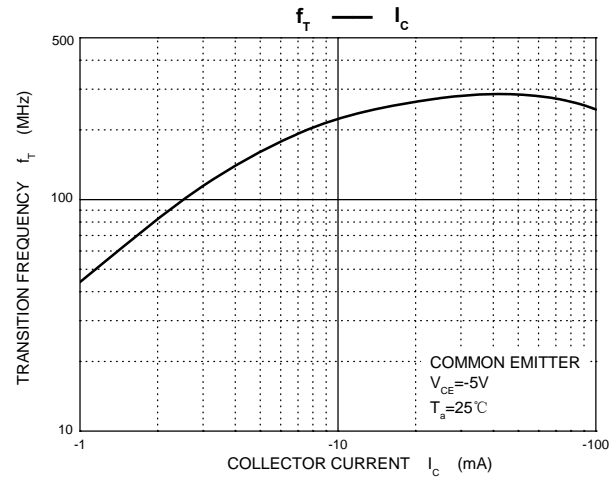
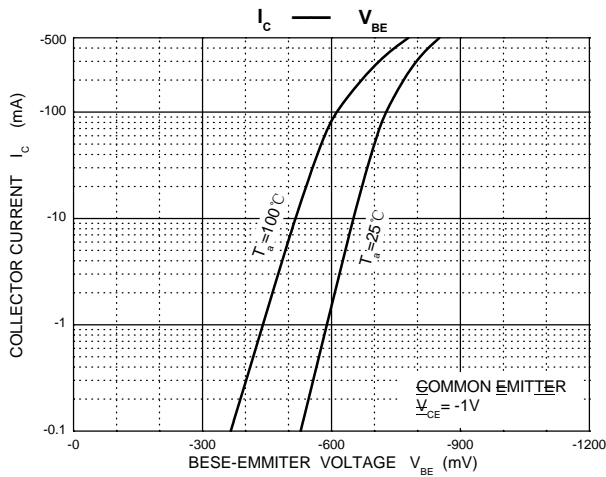
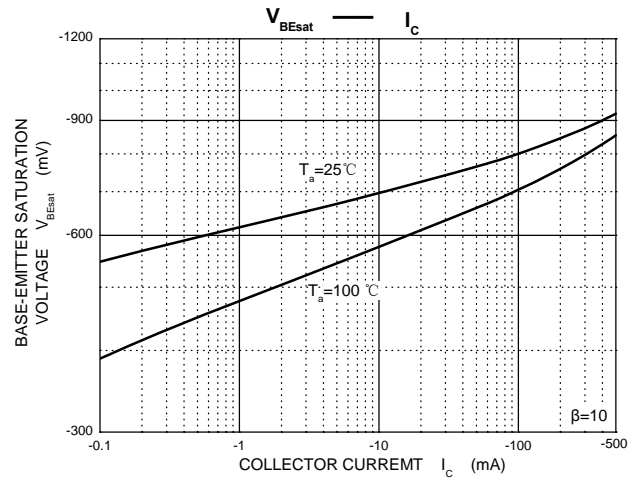
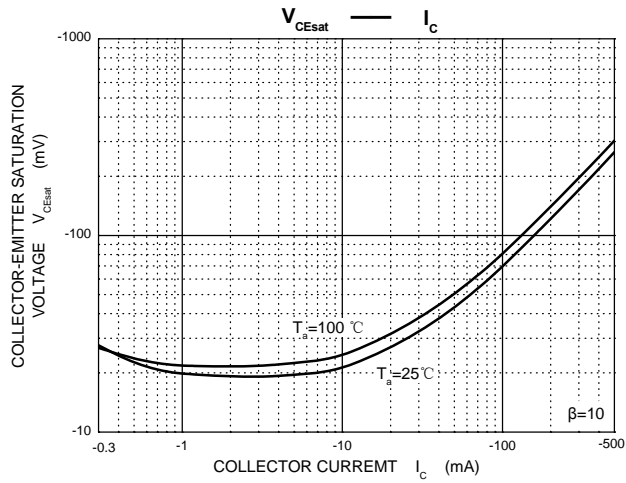
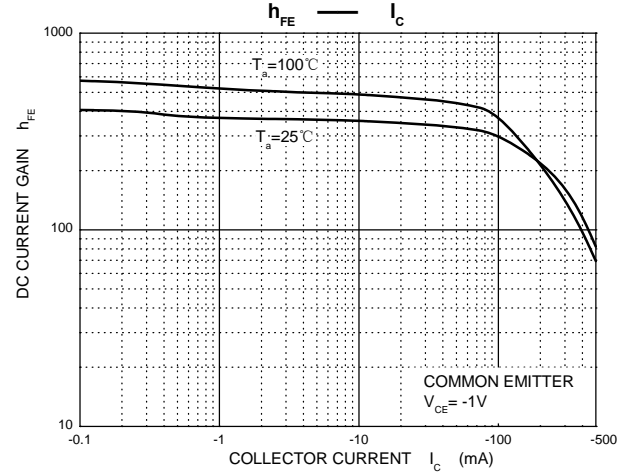
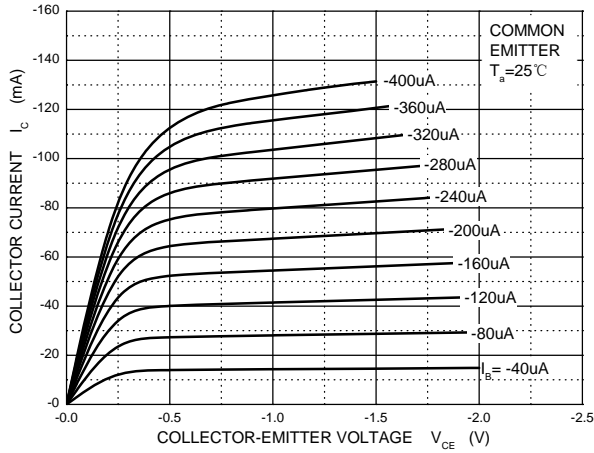
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_C	Collector Power Dissipation	0.2	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	625	°C/W
T_J, T_{stg}	Storage Temperature	-55~+150	°C

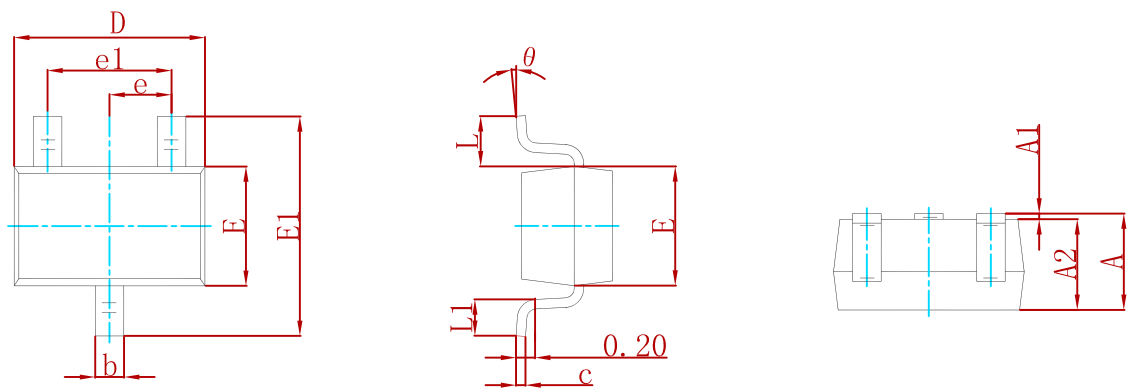
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-50		V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -10mA, I_B = 0$	-45		V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -1\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -20V, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100mA$	100	600	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -500mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.7	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -1V, I_C = -500mA$		-1.2	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	80		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		10	pF

Static Characteristic

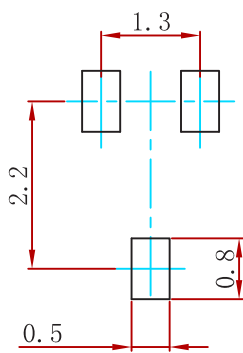


PACKAGE MECHANICAL DATA



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	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
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°

Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
BC807-16W/25W/40W	SOT-323	3000

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