



Micro Commercial Components



Micro Commercial Components  
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**2SB647(A)-B**  
**2SB647(A)-C**  
**2SB647-D**

**Features**

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Capable of 0.9Watts of Power Dissipation.
- Collector-current -1.0A
- Collector-base Voltage 120V
- Operating and storage junction temperature range: -55°C to +150°C
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Min	Max	Units
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**OFF CHARACTERISTICS**

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C = -1mA, I_B = 0$ )	- 80		Vdc
		- 100		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C = -10\mu A, I_E = 0$ )	-120		Vdc
$V_{(BR)EBO}$	Emitter-Base Voltage ( $I_E = -10\mu A, I_C = 0$ )	-5		Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB} = -100V, I_E = 0$ )		-10	$\mu A$

**ON CHARACTERISTICS**

$h_{FE}$	DC Current Gain ( $I_C = -150mA, V_{CE} = -5V$ )	60	320	
		60	200	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = -500mA, I_B = -50mA$ )		-1	Vdc

**SMALL-SIGNAL CHARACTERISTICS**

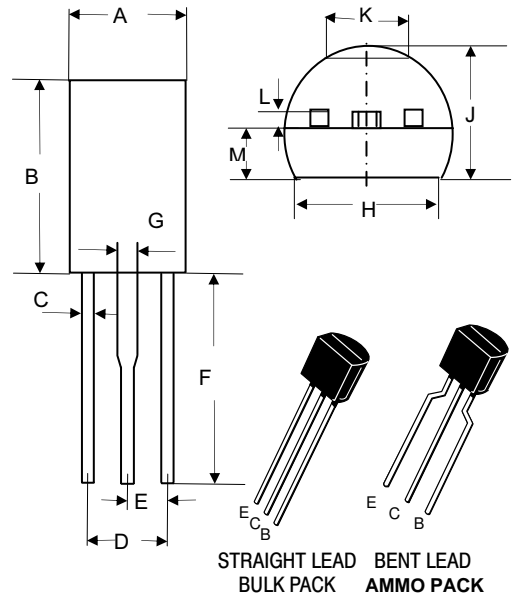
$f_T$	Transistor Frequency ( $I_C = -150mA, V_{CE} = -5V$ )	140		MHz
$C_{ob}$	Output capacitance ( $I_E = 0, V_{CE} = -10V, f = 1MHz$ )		20	pF

**CLASSIFICATION OF  $h_{FE}$**

Rank	B	C	D
2SB647	60-120	100-200	160-320
2SB647A	60-120	100-200	

**PNP Silicon  
 Plastic-Encapsulate  
 Transistor**

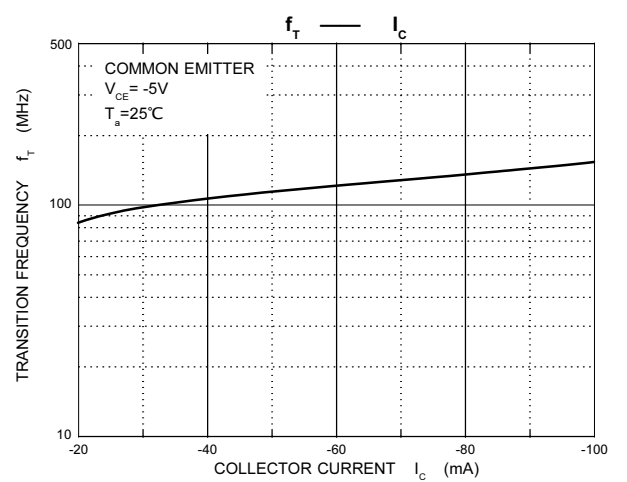
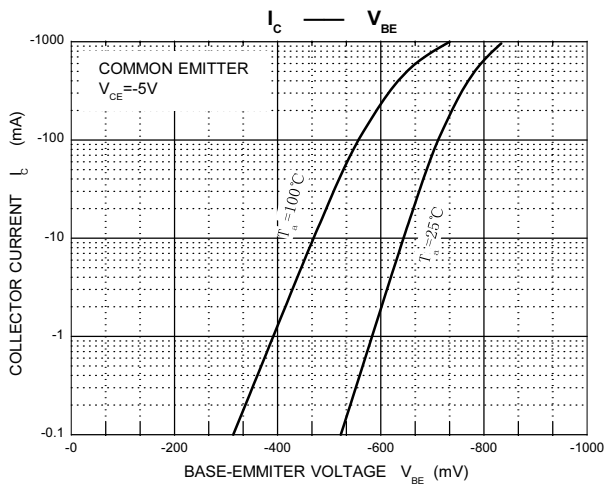
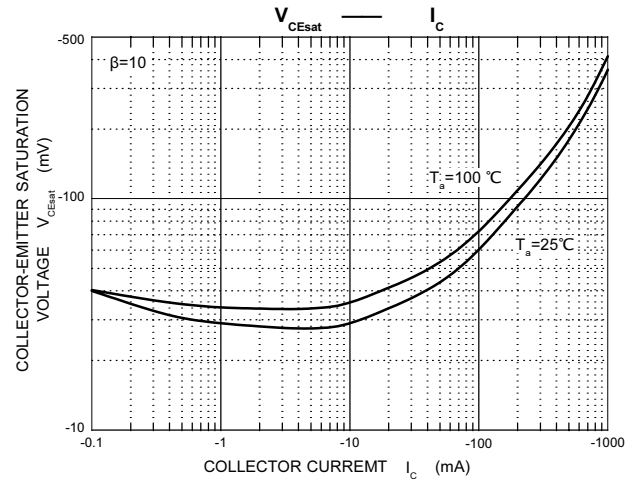
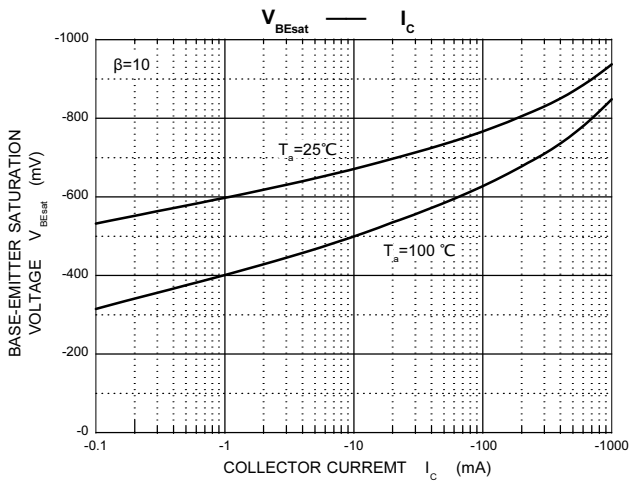
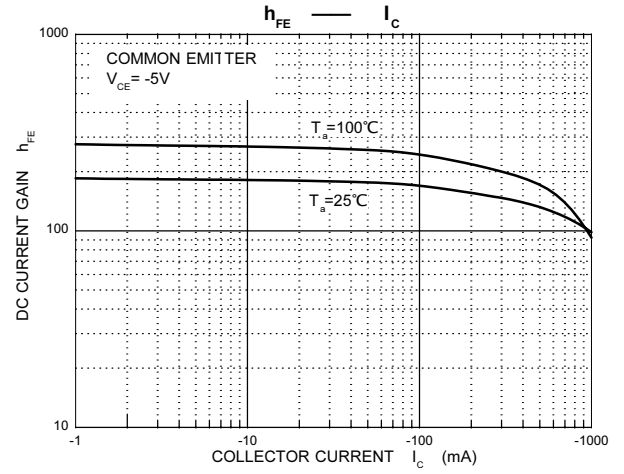
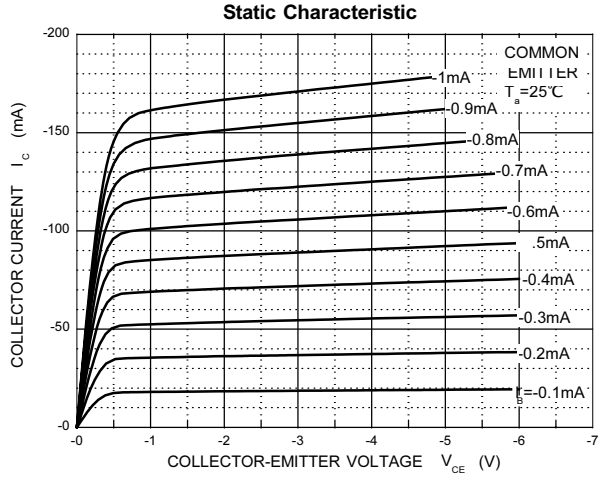
**TO-92MOD**



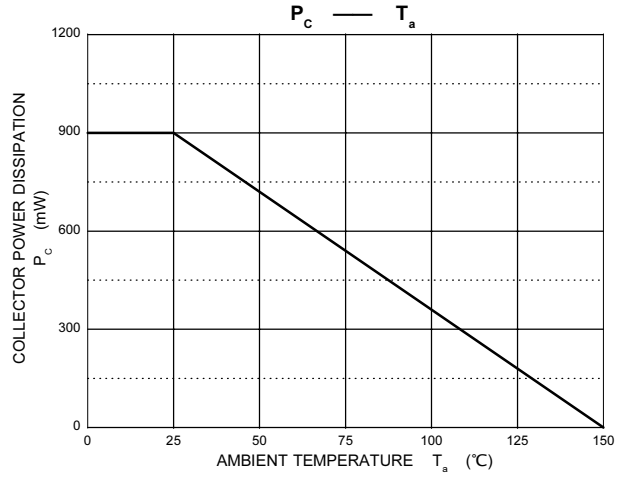
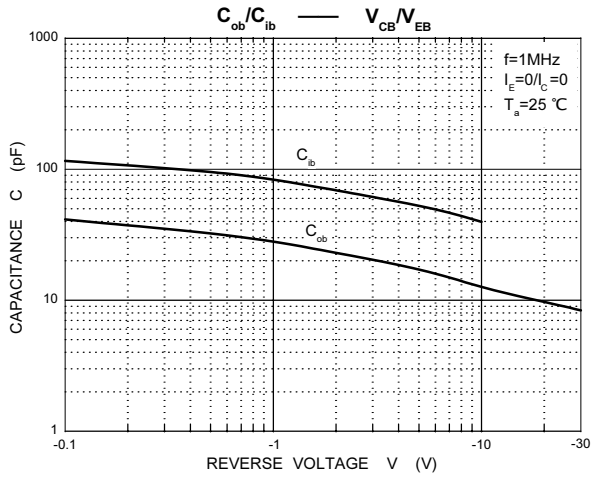
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.228	.244	5.80	6.20	
B	.331	.346	8.40	8.80	
C	.016	.024	0.40	0.60	
D	.114	.122	2.90	3.10	Straight Lead
	.173	.220	4.40	5.60	Bent Lead
E	.059		1.50		Straight Lead
	.086	.110	2.20	2.80	Bent Lead
F	.543	.559	13.80	14.20	
G	.035	.043	0.90	1.10	
H	.157	----	4.00	---	
J	.185	.201	4.70	5.10	
K	---	.063	---	1.60	
L	.016	.020	0.40	0.50	
M	.068	.080	1.73	2.03	

\* For ammo packing detailed specification, click here to visit our website of product packaging for details.

# 2SB647(A)



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### Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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