# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 Fax: (818) 701-4939

### Features

- Halogen free available upon request by adding suffix "-HF"
- Low Current
- Low Voltage
- Ultra-small Surface Mount Package
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking:D2

#### Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit	
V <sub>CEO</sub>	Collector-Emitter Voltage	-45	V	
V <sub>CBO</sub>	Collector-Base Voltage	-50 V		
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V	
Ιc	Collector Current	-100	mA	
R <sub>®JA</sub>	Thermal Resistance Junction to Ambient 1250		°C/W	
TJ	Operating Junction Temperature	-55 to +150	°C	
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C	

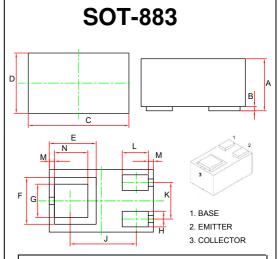
#### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Тур	Max	Units
$V_{(\text{BR})\text{CEO}}$	Collector-Emitter Breakdown Voltage $(I_{C}=-10mAdc, I_{B}=0)$	-45			Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage $(I_C=-10uAdc, I_E=0)$	-50			Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage $(I_E=-10uAdc, I_C=0)$	-6			Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =-30Vdc, I <sub>E</sub> =0Vdc)			-15	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =-5Vdc, I <sub>C</sub> =0Vdc)			-15	nAdc
h <sub>FE</sub>	DC Current Gain (I <sub>c</sub> =-2mAdc, V <sub>CE</sub> =-5Vdc)	220		475	
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage * ( $I_c$ =-10mAdc, $I_B$ =-0.5mAdc) ( $I_c$ =-100mAdc, $I_B$ =-5mAdc)			-200 -400	mVdc
$V_{\text{BE(sat)}}$	Base-Emitter Saturation Voltage * ( $I_c$ =-10mAdc, $I_B$ =-0.5mAdc) ( $I_c$ =-100mAdc, $I_B$ =-5mAdc)		-700 -900		mVdc
$V_{\text{BE}}$	Base-Emitter Voltage * (I <sub>c</sub> =-2mAdc, V <sub>cE</sub> =-5Vdc) (I <sub>c</sub> =-10mAdc, V <sub>cE</sub> =-5Vdc)			-700 -770	mVdc
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =-5Vdc, I <sub>C</sub> =-10mAdc, f=100MHz)	100			MHz
$C_{ob}$	Output Capacitance (V <sub>CB</sub> =-10Vdc, f=1.0MHz, I <sub>E</sub> =0)		2.5		pF
NF	Noise Figure (V <sub>CE</sub> =-5V,I <sub>E</sub> =-0.2mA,f=1KHz,R <sub>S</sub> =1k Ω,B=200Hz)		10		dB

\*Pulse test: pulse width  $\leq$ 300µs, duty cycle $\leq$  2.0%.

### BC857BM

### PNP Plastic-Encapsulate Transistors

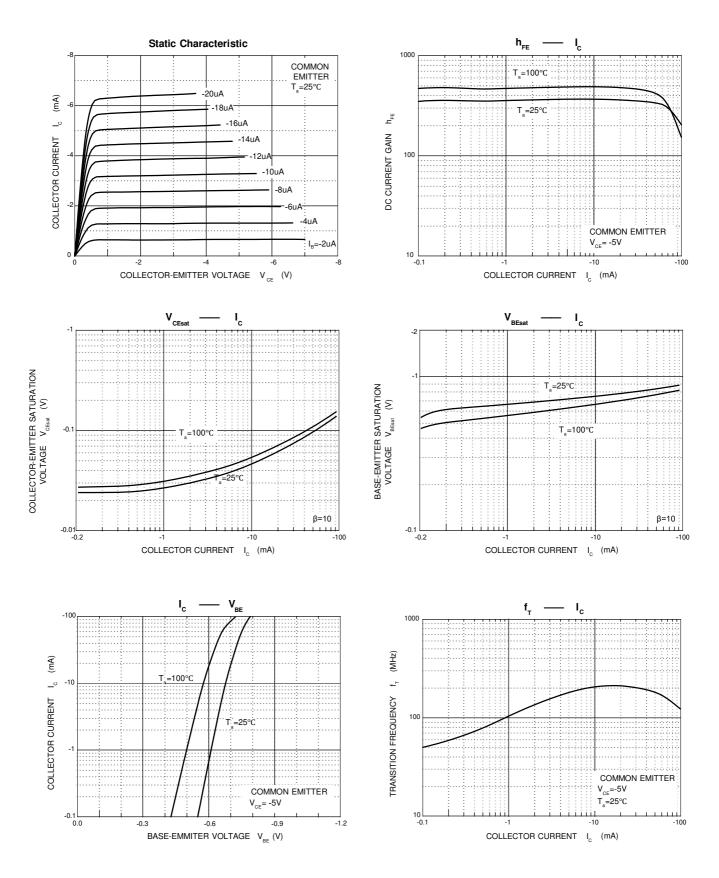


-			1		
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
А	0.018	0.022	0.450	0.550	
В	0.000	0.004	0.010	0.100	
С	0.037	0.041	0.950	1.050	
D	0.022	0.026	0.550	0.650	
Е	0.018REF.		0.450REF.		
F	0.018REF.		0.450REF.		
G	0.011	0.015	0.270	0.370	
Н	0.004	0.008	0.100	0.200	
J	0.025REF.		0.635REF.		
Κ	0.012	0.016	0.300	0.400	
L	0.008	0.012	0.200	0.300	
М	0. 002REF.		0.050REF.		
Ν	0.011	0.015	0.270	0.370	

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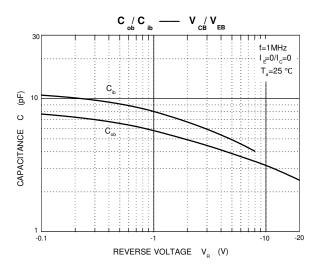
#### **Typical Characteristics**



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#### **Typical Characteristics**



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**Revision:** A



### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel 10Kpcs/Reel

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

#### **\*\*\*IMPORTANT NOTICE\*\*\***

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MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

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Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

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