



Micro Commercial Components



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

BC857S

PNP Plastic-Encapsulate Transistors 300mW

Features

- # Multi-chip Transistor
- # 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
- Moisture Sensitivity Level 1

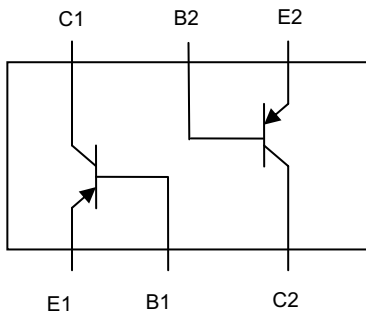
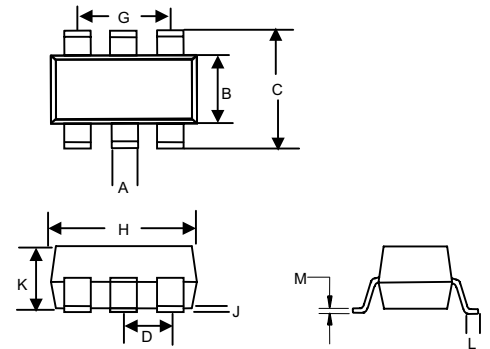
Mechanical Data

- # Case: SOT-363
- Marking: 3C

Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Parameter	Value	Units
OFF CHARACTERISTICS			
I_{CM}	Peak Collector Current	-200	mA
V(BR)CBO	Collector-base Voltage	-50	V
P_d	Power Dissipation @ $T_A=25^\circ\text{C}$	300	mW
T_J, T_{STG}	Operating & Storage Temperature	-55~+150	°C

SOT-363



BC857S Structure schematic diagram

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

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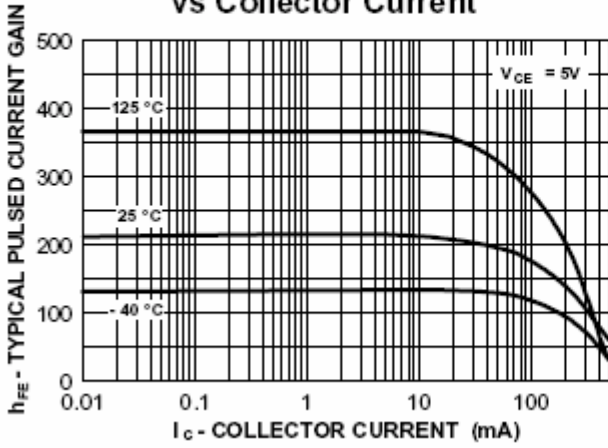
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ELECTRICAL CHARACTERISTICS(Tamb=25 unless otherwise specified)

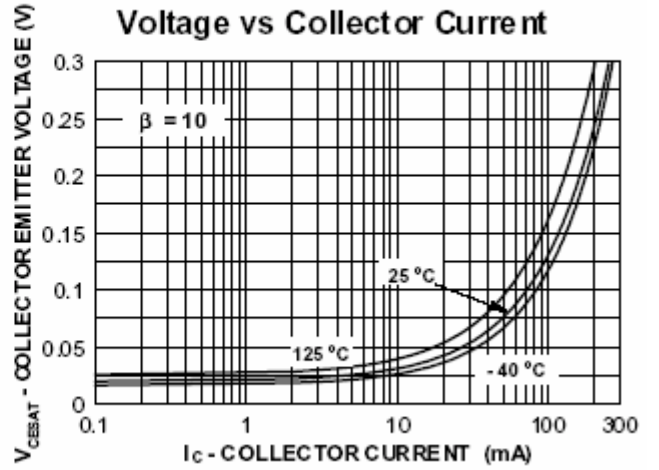
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-30V, I_E=0$			-15	nA
DC current gain	h_{FE}	$V_{CE}=-5V, I_C=-2mA$	125		630	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C=-10mA, I_B=-0.5mA$			-0.3	V
	$V_{CE(sat)(2)}$	$I_C=-100mA, I_B=-5mA$			-0.65	V
Base-emitter voltage	$V_{BE(1)}$	$V_{CE}=-5V, I_C=-2mA$	-0.6		-0.75	V
	$V_{BE(2)}$	$V_{CE}=-5V, I_C=-10mA$			-0.82	V
Transition frequency	f_T	$V_{CE}=-5V, I_C=-10mA, f=100MHz$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$		3.5		pF
Noise figure	NF	$V_{CE}=-5V, I_C=-0.2mA,$ $f=1kHz, R_s=2K, BW=200Hz$		2.5		dB

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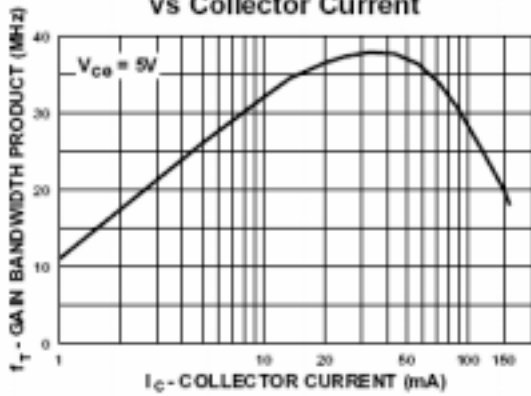
Typical Pulsed Current Gain vs Collector Current



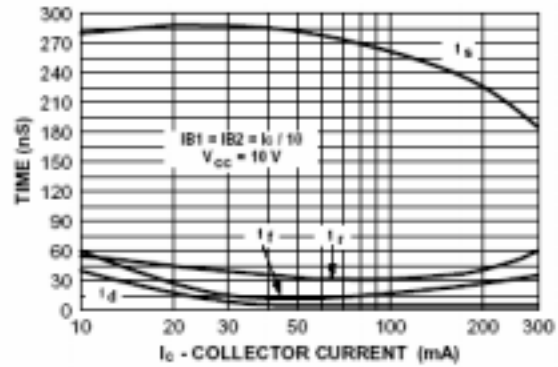
Collector-Emitter Saturation Voltage vs Collector Current



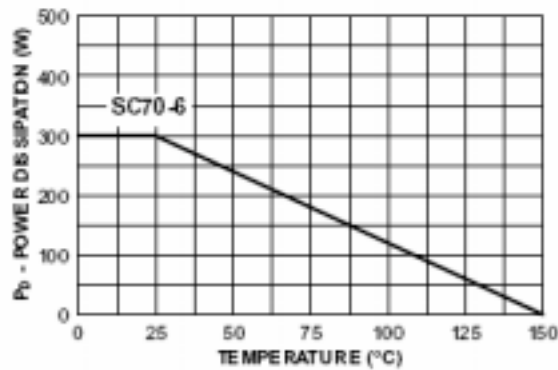
Gain Bandwidth Product vs Collector Current



Switching Times vs Collector Current

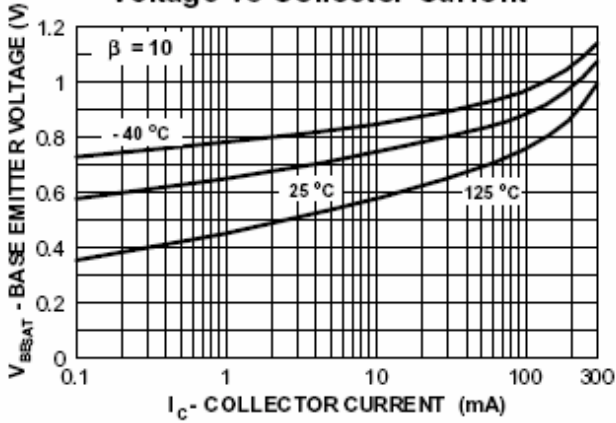


Power Dissipation vs Ambient Temperature

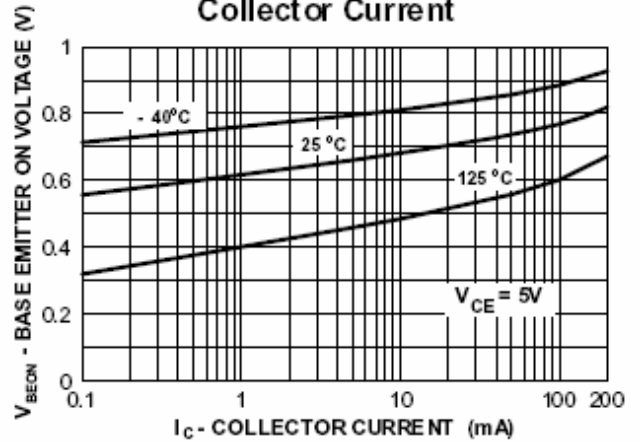


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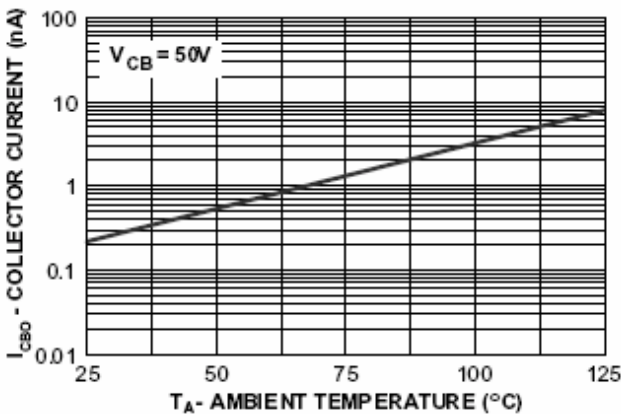
Base-Emitter Saturation Voltage vs Collector Current



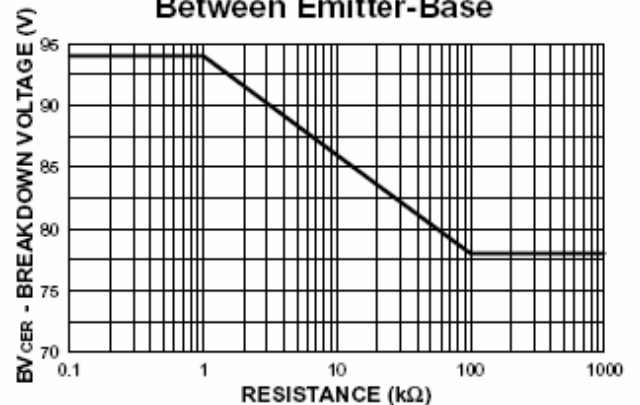
Base Emitter ON Voltage vs Collector Current



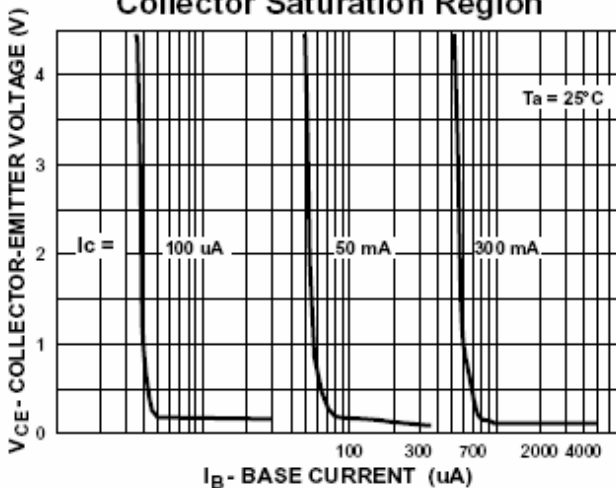
Collector-Cutoff Current vs Ambient Temperature



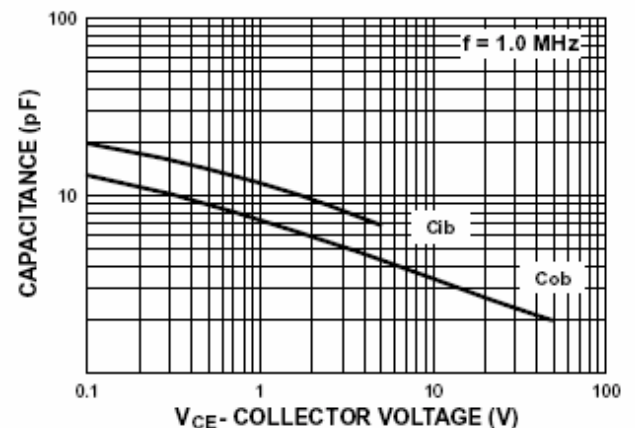
Collector-Emitter Breakdown Voltage with Resistance Between Emitter-Base



Collector Saturation Region



Input and Output Capacitance vs Reverse Voltage





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

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