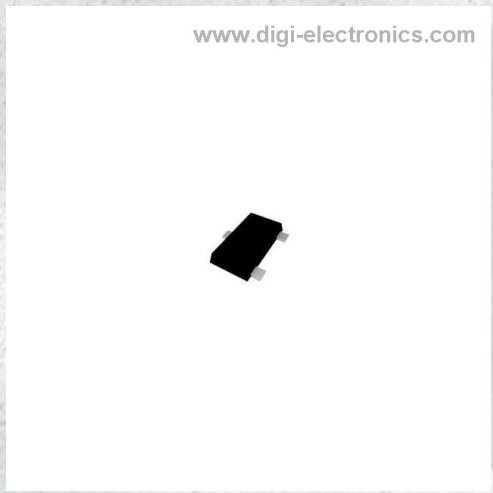
BC858BM3-TP Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	BC858BM3-TP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	BC858BM3-TP
Description	Interface
Detailed Description	Bipolar (BJT) Transistor PNP 30 V 100 mA 100MHz 2 65 mW Surface Mount SOT-723

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
BC858BM3-TP	Micro Commercial Co
Series:	Product Status:
-	Active
Transistor Type:	Current - Collector (Ic) (Max):
PNP	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
30 V	650mV @ 5mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
1mA	200 @ 2mA, 5V
Power - Max:	Frequency - Transition:
265 mW	100MHz
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
SOT-723	SOT-723
Base Product Number:	
BC858	

Environmental & Export classification

REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0075	

Micro Commercial Components

BC856AM3 THRU BC858CM3

Features

- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

PNP Plastic-Encapsulate Transistors

Maximum Ratings @ 25°C Unless Otherwise Specified

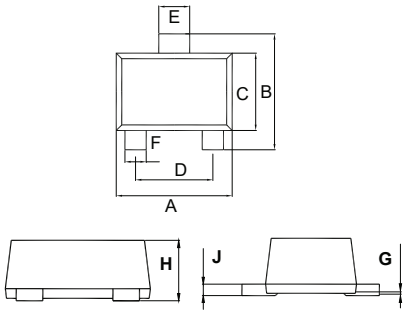
- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Maximum Thermal Resistance:472℃/W Junction to Ambient(Note 2)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage BC856AM3,BC856BM3 BC857AM3,BC857BM3,BC857CM3 BC858AM3,BC858BM3,BC858CM3	V_{CBO}	 -80 -50 -30	V
Collector-Emitter Voltage BC856AM3,BC856BM3 BC857AM3,BC857BM3,BC857CM3 BC858AM3,BC858BM3,BC858CM3	V_{CEO}	 -65 -45 -30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Collector Power Dissipation@T_A=25°C(Note2)	P_C	265	mW

Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

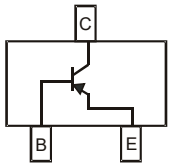
Note:2. Device Mounted on FR−5: 1.0 X 0.75 X 0.062 inch

SOT-723



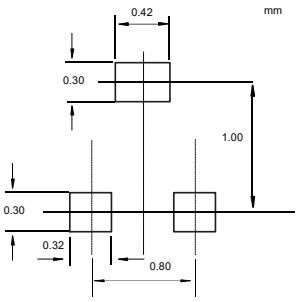
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.043	0.051	1.10	1.30	
B	0.043	0.051	1.10	1.30	
C	0.028	0.035	0.70	0.90	
D	0.031		0.80		TYP.
E	0.009	0.017	0.22	0.42	
F	0.005	0.013	0.12	0.32	
G	0.000	0.002	0.00	0.05	
H	0.017	0.021	0.43	0.54	
J	0.003	0.006	0.08	0.15	

Internal Structure



Marking:
BC856AM3:3A; BC856BM3:3B;
BC857AM3:3E; BC857BM3:3F; BC857CM3:3G;
BC858AM3:3J; BC858BM3:3K; BC858CM3:3L;

Suggested Solder Pad Layout



Electrical Characteristics @ T_A=25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage						
BC856AM3,BC856BM3	$V_{(BR)CBO}$	-80			V	I_C=-10μA, I_E=0
BC857AM3,BC857BM3,BC857CM3		-50				
BC858AM3,BC858BM3,BC858CM3		-30				
Collector-Emitter Breakdown Voltage						
BC856AM3,BC856BM3	$V_{(BR)CEO}$	-65			V	I_C=-10mA, I_B=0
BC857AM3,BC857BM3,BC857CM3		-45				
BC858AM3,BC858BM3,BC858CM3		-30				
Emitter-Base Breakdown Voltage						
BC856AM3,BC856BM3	$V_{(BR)EBO}$	-5			V	I_E=-1μA, I_C=0
BC857AM3,BC857BM3,BC857CM3		-5				
BC858AM3,BC858BM3,BC858CM3		-5				
Collector Cut-off Current	I_{CBO}			-15	nA	V_{CB}=-30V, I_E=0
Emitter Cutoff Current	I_{EBO}			-100	nA	V_{EB}=-5V, I_C=0
Emitter Cutoff Current	I_{CEO}			-1	mA	V_{CE}=-30V, I_B=0
DC Current Gain						
BC856AM3/BC857AM3/BC858AM3	h_{FE}	110		220		V_{CE}=-5V, I_C=-2mA
BC856BM3/BC857BM3/BC858BM3		200		450		
BC857CM3/BC858CM3		420		800		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3	V	I_C=-10mA, I_B=-0.5mA
				-0.65		I_C=-100mA, I_B=-5mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.7		V	I_C=-10mA, I_B=-0.5mA
			-0.85			I_C=-100mA, I_B=-5mA
Base-Emitter On Voltage	$V_{BE(on)}$		-0.65	-0.75	V	V_{CE}=-5V, I_C=-2mA
				-0.82		V_{CE}=-5V, I_C=-10mA
Transition Frequency	f_T	100			MHz	V_{CE}=-5V, I_C=-10mA, f=100MHz

Curve Characteristics

Fig. 1 - Static Characteristics

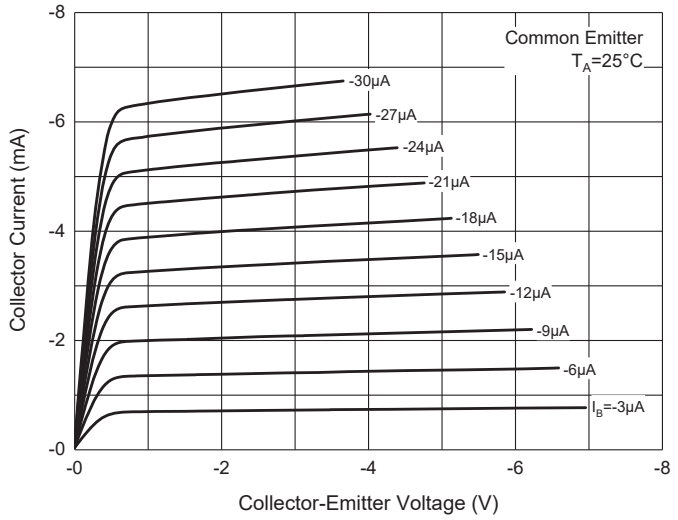


Fig. 2 - DC Current Gain Characteristics

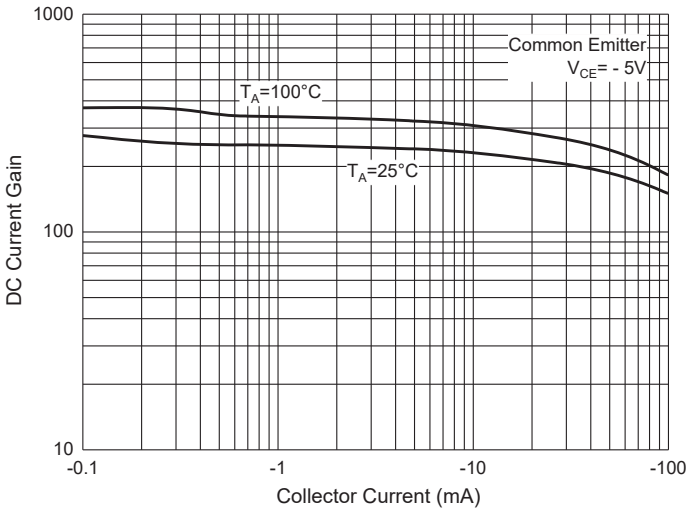


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

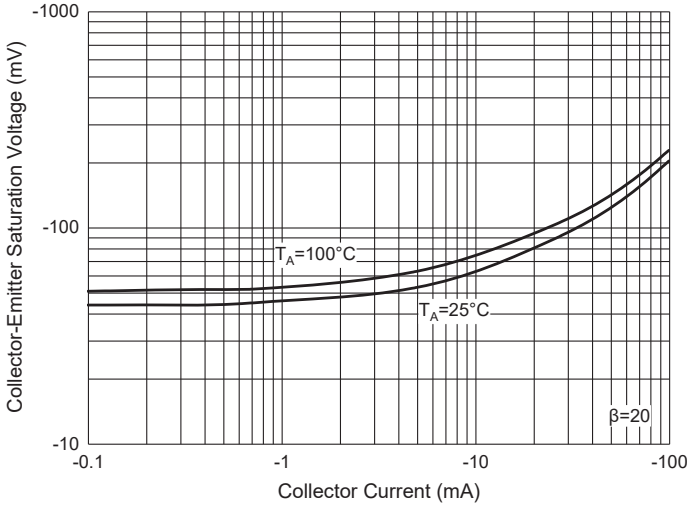


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

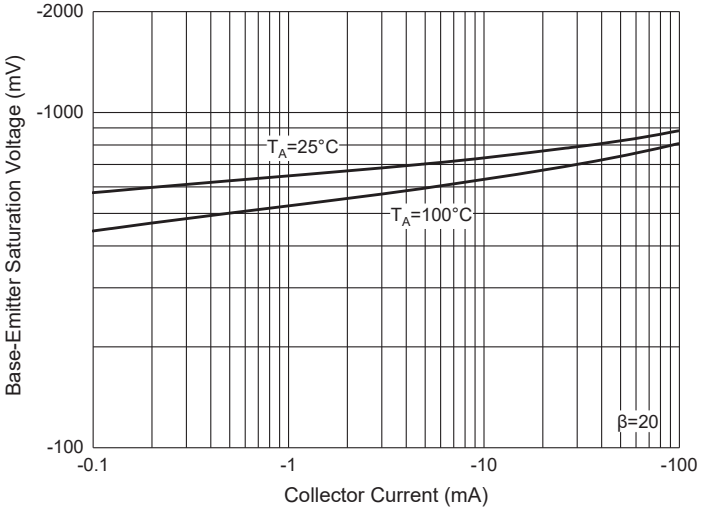


Fig. 5 - Base-Emitter Voltage Characteristics

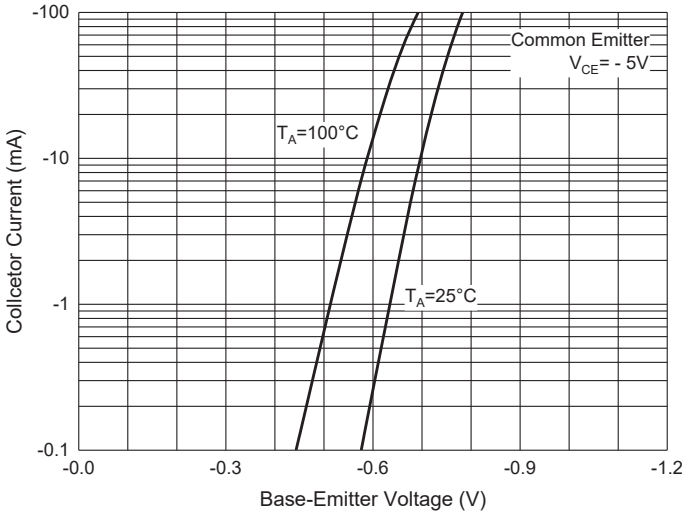
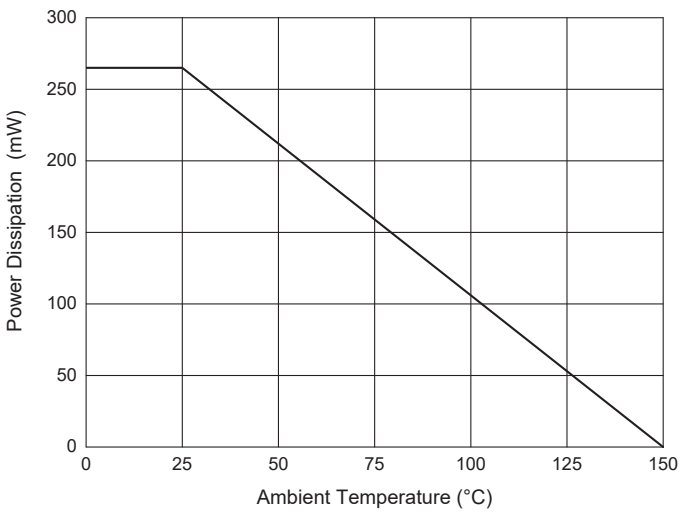


Fig. 6 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

OUR CERTIFICATE

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