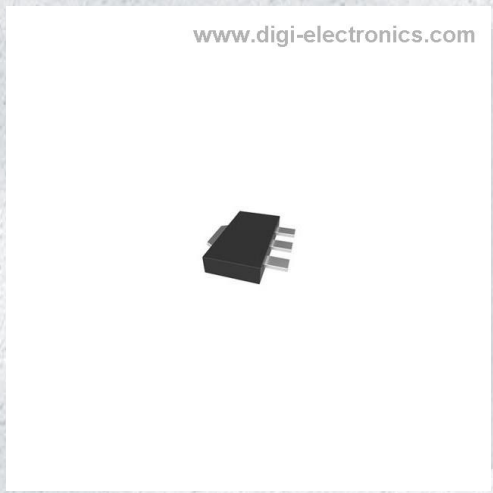
2SA1201-Y-TP Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	2SA1201-Y-TP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	2SA1201-Y-TP
Description	TRANS PNP 120V 0.8A SOT89
Detailed Description	Bipolar (BJT) Transistor PNP 120 V 800 mA 120MHz 1 W Surface Mount SOT-89

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SA1201-Y-TP	Micro Commercial Co
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	800 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
120 V	1V @ 50mA, 500mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	80 @ 100mA, 5V
Power - Max:	Frequency - Transition:
1 W	120MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
TO-243AA	SOT-89
Base Product Number:	
2SA1201	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.29.0075	

Features

- Power Amplifier Applications
- 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 Silicon Power Transistors

Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55℃ to +150℃
- Storage Temperature Range: -55℃ to +150℃
- Thermal Resistance: 250℃/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-120	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-800	mA
Base Current	I_B	-160	mA
Collector Power Dissipation	P_C	500 1000(Note1)	mW

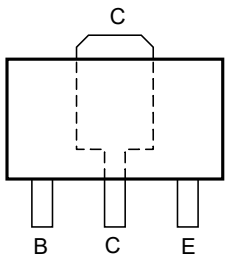
Classification Of h_{FE}

Rank	O	Y
Range	80-160	120-240
Marking	DO	DY

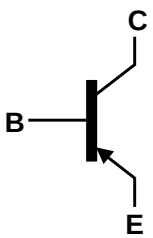
Note 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Note 2. Mounted on ceramic substrate (250mm^2 x 0.8t)

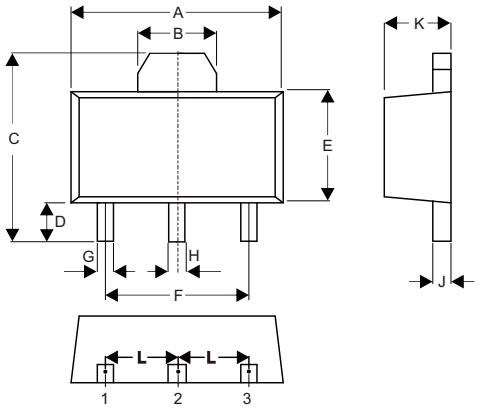
Pin Configuration - Top View



Internal Structure

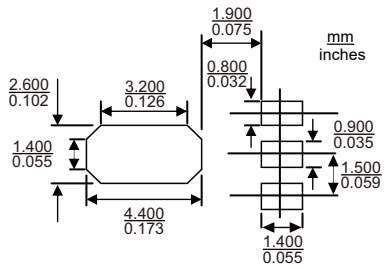


SOT-89



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.061		1.55		TYP.
C	0.154	0.171	3.91	4.35	
D	0.031	0.047	0.80	1.20	
E	0.089	0.104	2.25	2.65	
F	0.118		3.00		TYP.
G	0.013	0.020	0.33	0.52	
H	0.015	0.021	0.38	0.53	
J	0.014	0.017	0.35	0.44	
K	0.055	0.063	1.40	1.60	
L	0.059		1.50		TYP.

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-120			V	I_C=-1mA, I_E=0
Collector-Emitter Breakdown Voltag	$V_{(BR)CEO}$	-120			V	I_C=-10mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I_E=-1mA, I_C=0
Collector-Base Cutoff Current	I_{CBO}			-100	nA	V_{CB}=-120V, I_E=0
Emitter-Base Cutoff Current	I_{EBO}			-100	nA	V_{EB}=-5V, I_C=0
DC Current Gain	h_{FE}	80		240		V_{CE}=-5Vdc, I_C=-0.1A
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1.0	V	I_C=-500mA, I_B=-50mA
Base-Emitter Voltage	V_{BE}			-1.0	V	V_{CE}=-5V, I_C=-0.5A
Transition Frequency	f_T		120		MHz	V_{CE}=-5V, I_C=-0.1A
Collector Output Capacitance	C_{ob}			30	pF	V_{CB}=-10V, I_E=0A,f=1MHz

Curve Characteristics

Fig. 1 - Static Characteristics

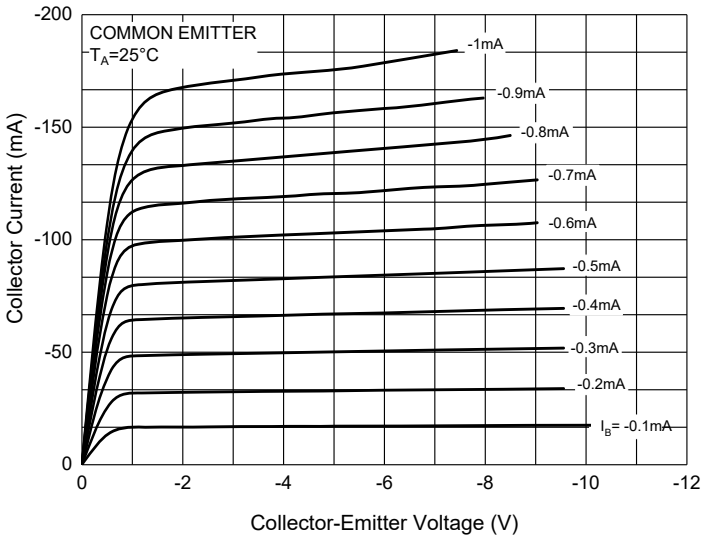


Fig. 2 - DC Current Gain Characteristics

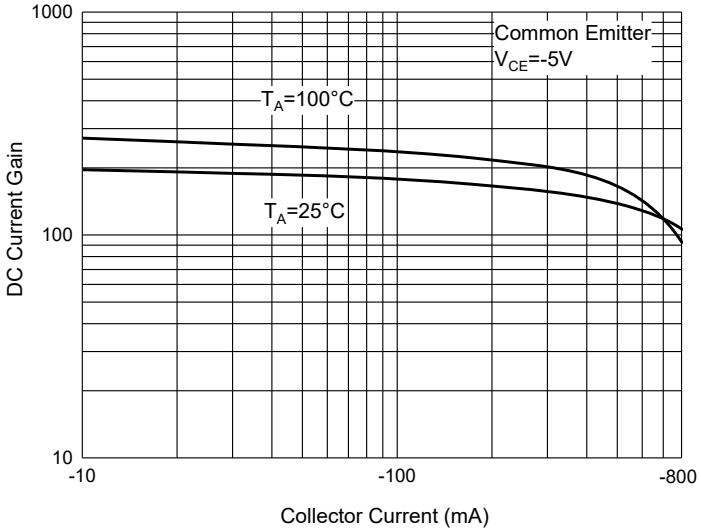


Fig. 3 - Collector-Emitter Saturation Voltage Characteristics

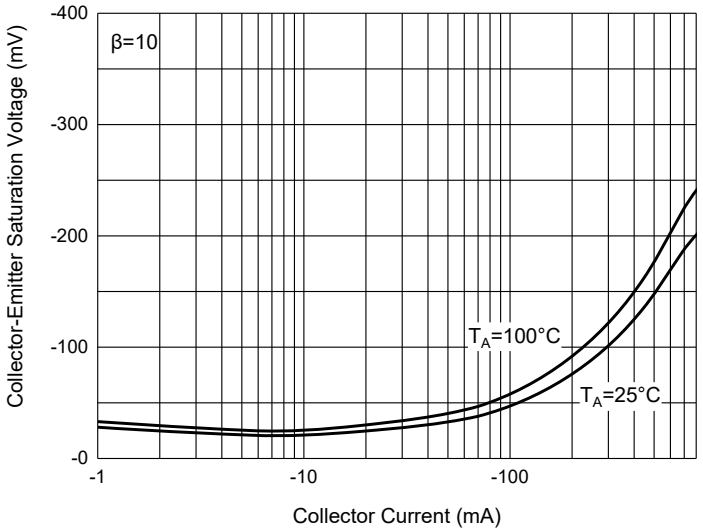


Fig. 4 - Base-Emitter Saturation Voltage Characteristics

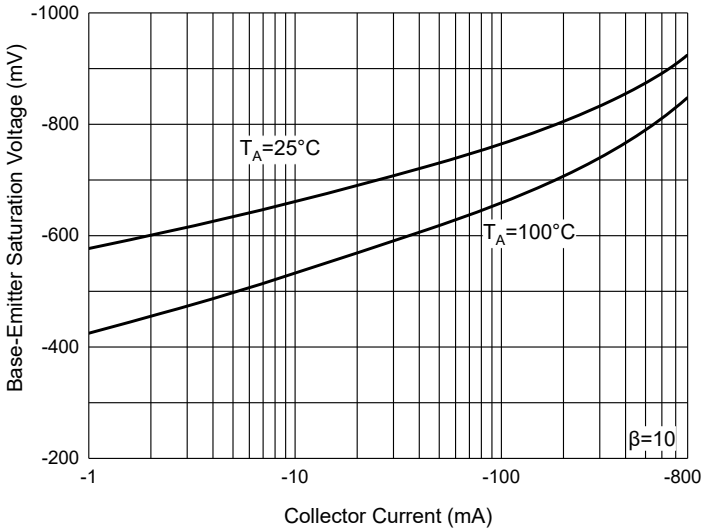


Fig. 5 - Base-Emitter Voltage Characteristics

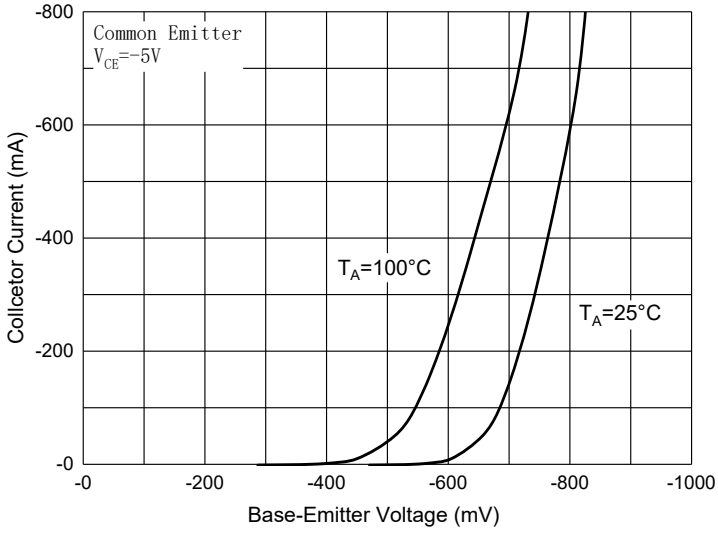
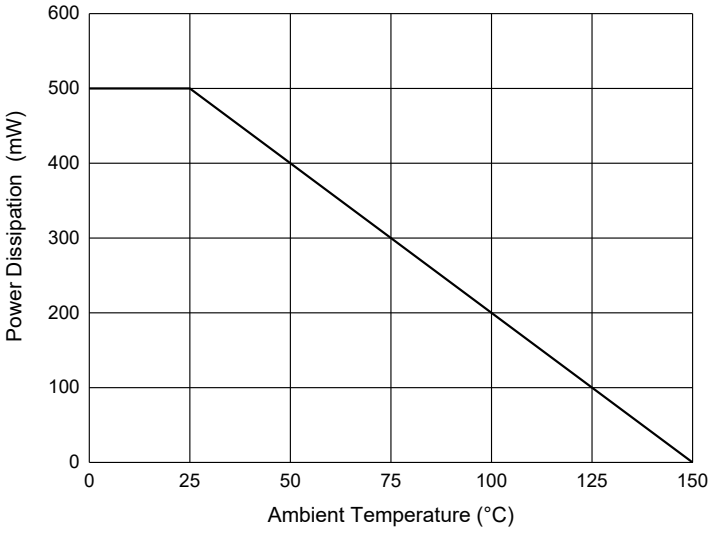


Fig. 6 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:1Kpcs/Reel

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