



**DESCRIPTION**

The 2SA1201-O & 2SA1201-Y are available in SOT-89 package.

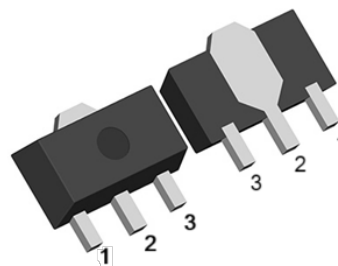
**FEATURE**

- High Voltage
- High transition frequency
- Complementary to 2SC2881

**ORDERING INFORMATION**

Package Type	Part Number
SOT-89	2SA1201-O
	2SA1201-Y
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

**PIN DESCRIPTION**



SOT-89

**H<sub>FE</sub> CLASSIFICATION**

Rank	Range
O	80 ~ 160
Y	120 ~ 240

PIN#	DESCRIPTION
1	Base
2	Collector
3	Emitter

**ABSOLUTE MAXIMUM RATINGS**

T<sub>A</sub> = 25°C, unless otherwise specified.

V <sub>CB0</sub> , Collector-Base Voltage	-120 V
V <sub>CE0</sub> , Collector-Emitter Voltage	-120 V
V <sub>CB0</sub> , Emitter-Base Voltage	-5 V
I <sub>c</sub> , Collector Current-Continuous	-0.8 A
P <sub>C</sub> , Collector Power Dissipation	0.5 W
T <sub>J</sub> , Junction Temperature	150 °C
T <sub>stg</sub> , Storage Temperature	-55 ~ +150 °C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

**ELECTRICAL CHARACTERISTICS** $T_A=25^{\circ}\text{C}$  unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -1\text{ mA}, I_E = 0$	-120	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{ mA}, I_B = 0$	-120	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1\text{ mA}, I_C = 0$	-5	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -120\text{ V}, I_E = 0$	-	-	-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$	-	-	-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -5\text{ V},$ $I_C = -100\text{ mA}$	80	-	240	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA},$ $I_B = -50\text{ mA},$	-	-	-1	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -5\text{ V},$ $I_C = -500\text{ mA}$	-	-	-1	V
Transition frequency	$f_T$	$V_{CE} = -5\text{ V},$ $I_C = -100\text{ mA}$	-	120	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V},$ $I_E = 0$ $f = 1\text{ MHz}$	-	-	30	pF



**TYPICAL CHARACTERISTICS**

Fig 1.  $I_C - V_{CE}$

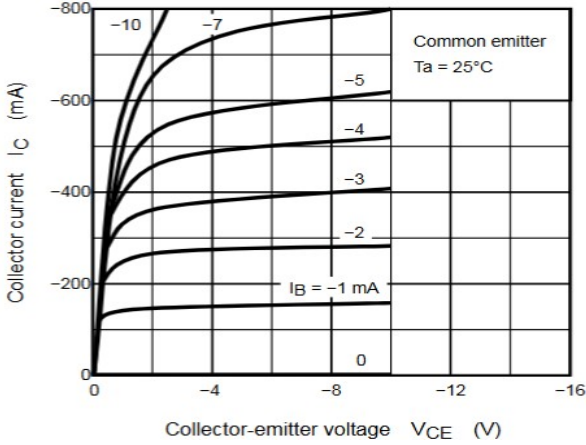


Fig 2.  $h_{FE} - I_C$

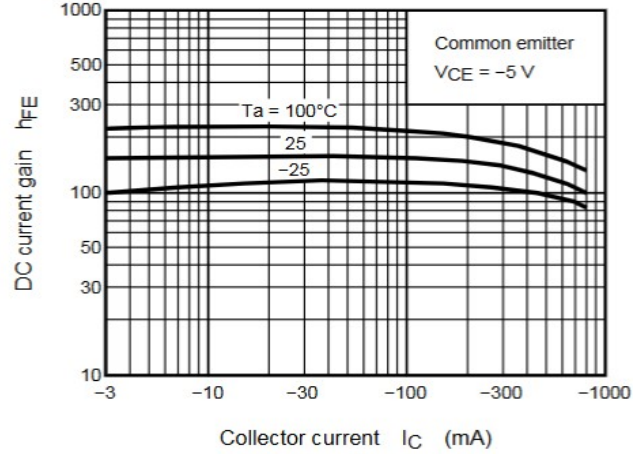


Fig 3.  $V_{CE(sat)} - I_C$

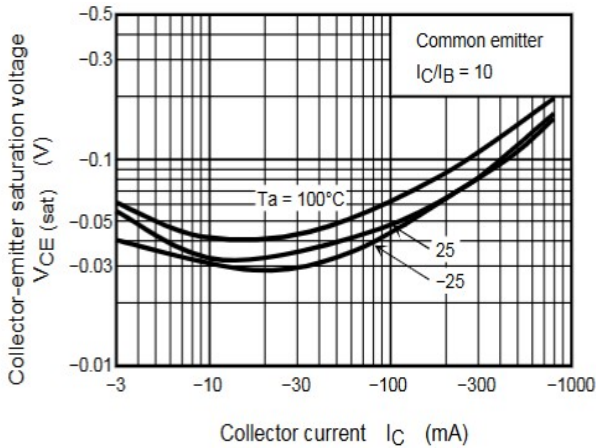


Fig 4.  $I_C - V_{BE}$

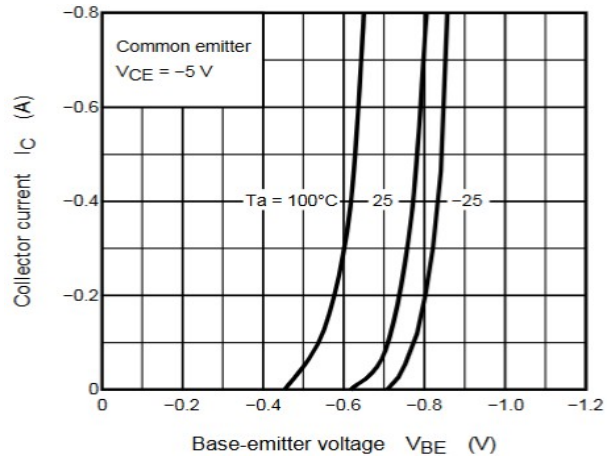


Fig 5. SAFE OPERATING AREA

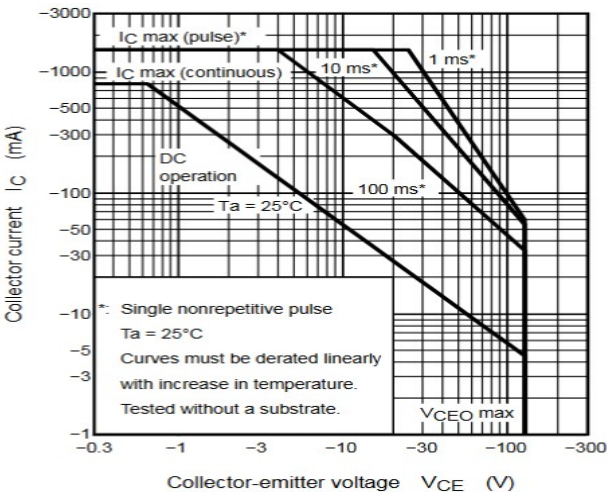
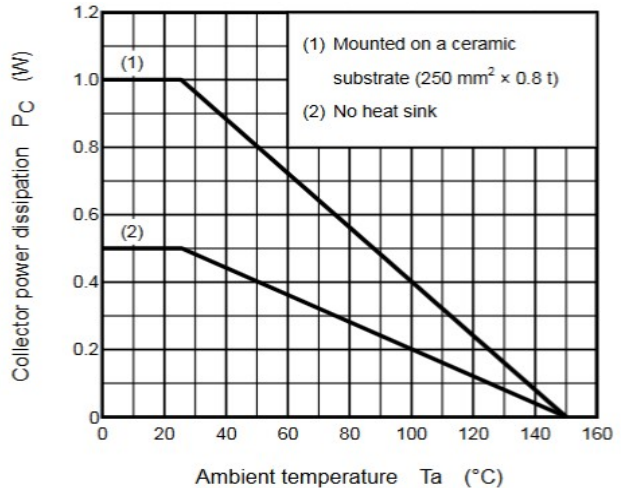


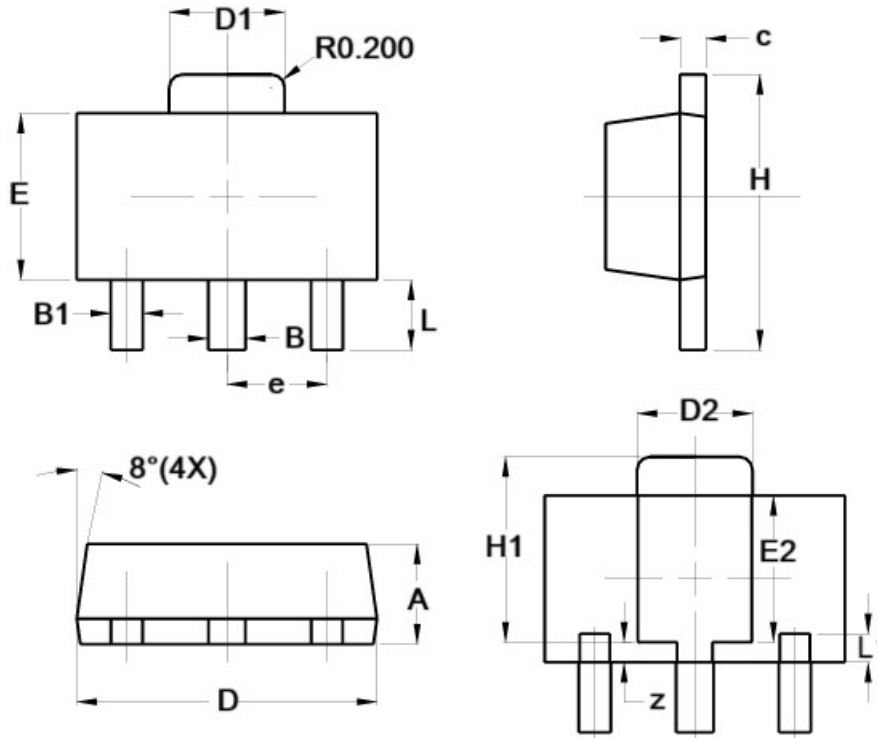
Fig 6.  $P_C - T_a$





**PACKAGE INFORMATION**

Dimension in SOT-89 (Unit: mm)



Symbol	Millimeter	
	Min.	Max.
A	1.400	1.600
B	0.500	0.620
B1	0.420	0.540
c	0.350	0.430
D	4.440	4.600
D1	1.620	1.830
D2	1.610	1.810
E	2.400	2.600
E2	2.050	2.350
e	1.500 TYP.	
H	3.950	4.250
H1	2.630	2.930
L	0.900	1.200
L1	0.327	0.527
z	0.200	0.400



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