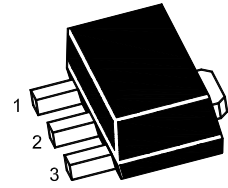


2SA1666U

PNP Silicon Epitaxial Planar Transistor

for high current application



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

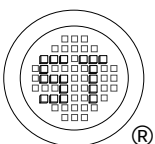
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	2	A
Base Current	$-I_B$	0.4	A
Total Power Dissipation	P_{tot}	0.5 1 ¹⁾	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ When mounted on a 250 mm² x 0.8 t ceramic substrate.

Characteristics at $T_a = 25^\circ\text{C}$

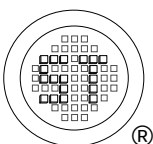
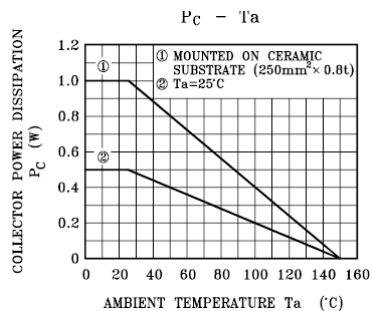
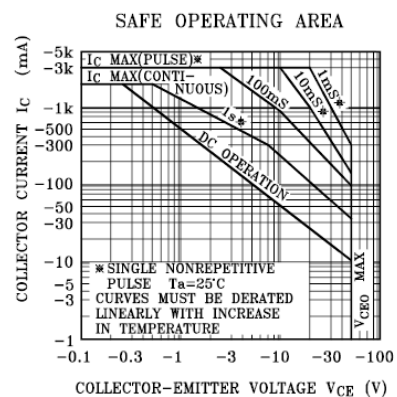
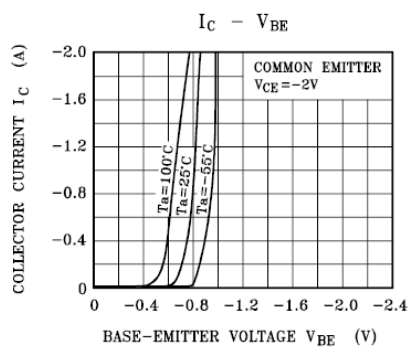
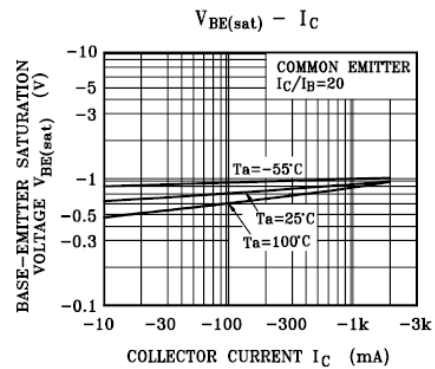
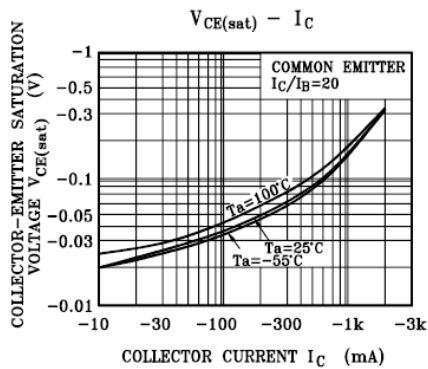
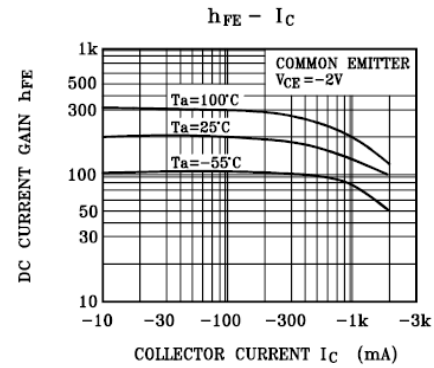
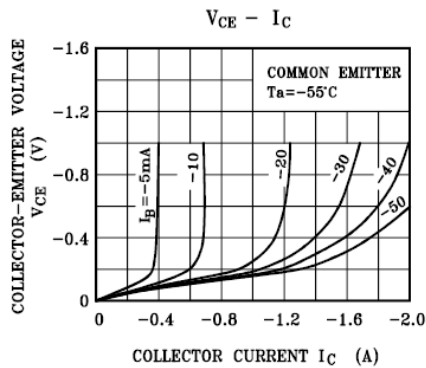
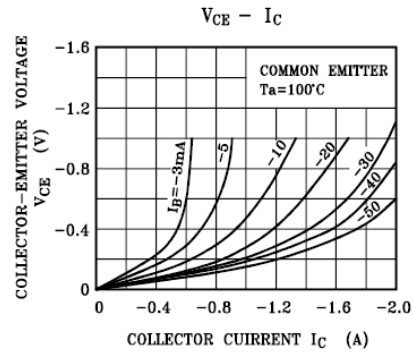
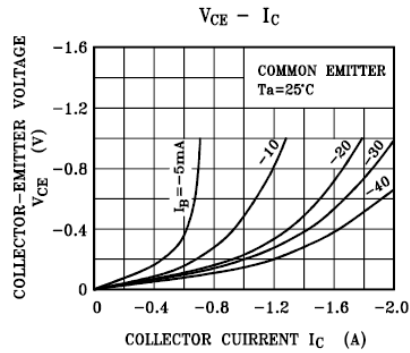
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 2\text{ V}$, $-I_C = 500\text{ mA}$	h_{FE} h_{FE} h_{FE}	70	-	140	-
Current Gain Group O		120	-	240	-
Y		40	-	-	-
at $-V_{CE} = 2\text{ V}$, $-I_C = 1.5\text{ A}$					
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	100	nA
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	100	nA
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	50	-	-	V
Collector Emitter Saturation Voltage at $-I_C = 1\text{ A}$, $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_C = 1\text{ A}$, $-I_B = 50\text{ mA}$	$-V_{BE(sat)}$	-	-	1.2	V
Transition Frequency at $-V_{CE} = 2\text{ V}$, $-I_C = 500\text{ mA}$	f_T	-	120	-	MHz
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	40	-	pF



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ISO/TS 16949:2009
Certificate No. 160713000

ISO 14001:2004
Certificate No. 7116

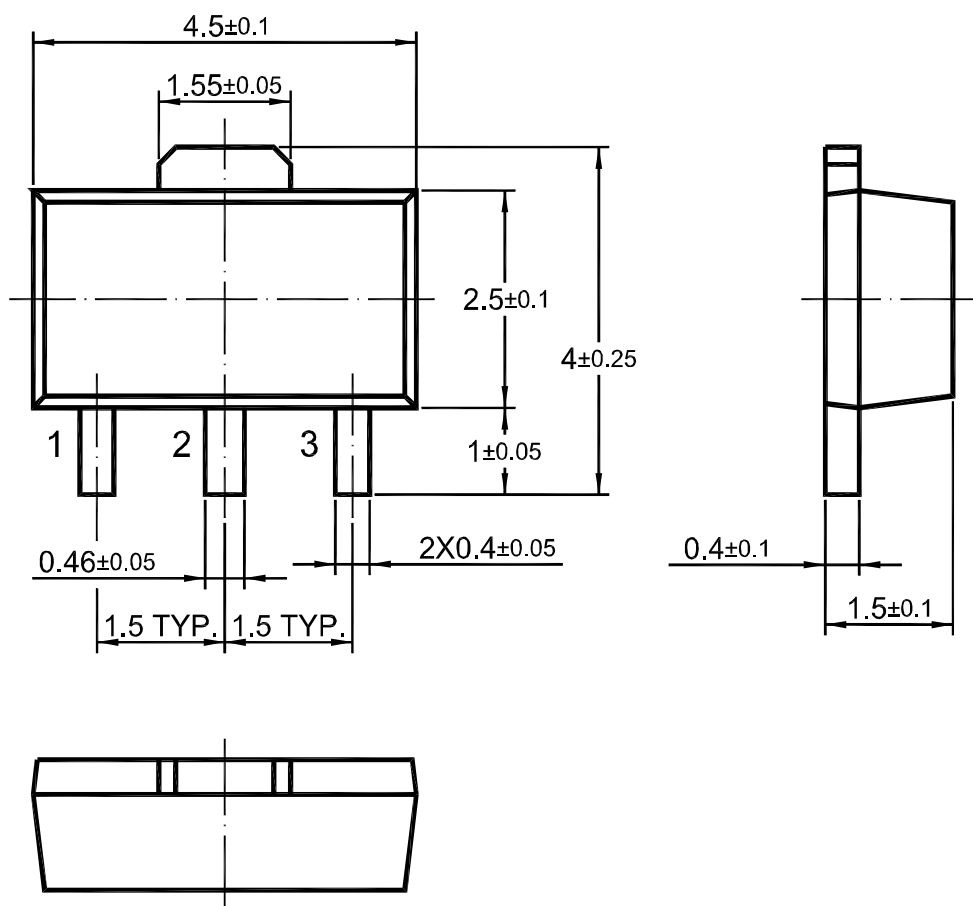
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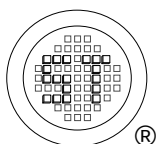
IECQ QC 080000
Certificate No. PRC-18294-1483

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SOT-89 PACKAGE OUTLINE



Dimensions in mm



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