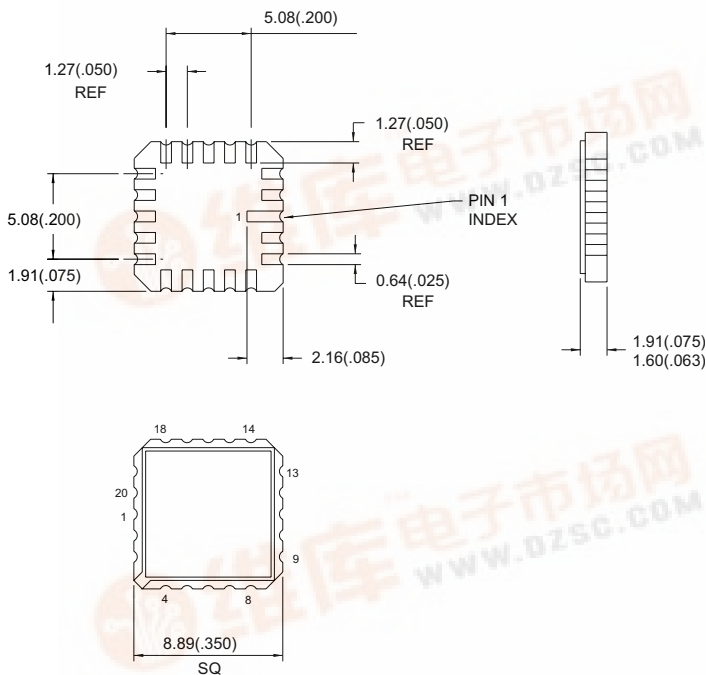


2N2907AQ-LCC20

MECHANICAL DATA

Dimensions in mm (inches)



SURFACE MOUNT QUAD PNP TRANSISTOR

FEATURES

- FOUR INDEPENDENT TRANSISTORS IN A 0.35 INCH SQUARE CERAMIC PACKAGE
- SURFACE MOUNTABLE
- HERMETICALLY SEALED PACKAGE
- SCREENING OPTIONS AVAILABLE

DESCRIPTION

The 2N2907AQ-LCC20 is a 20 pad, hermetically sealed, Ceramic Surface Mount Transistor array, consisting of four 2N2907A silicon PNP transistor die.

PACKAGE LCC20

Pin 1 = n/c	Pin 6 = n/c	Pin 11 = n/c	Pin 16 = n/c
Pin 2 = Collector1	Pin 7 = Emitter 2	Pin12 =Collector 3	Pin 17 = Emitter 4
Pin 3 = n/c	Pin 8 = Base 2	Pin13 = n/c	Pin 18 = Base 4
Pin 4 = Base 1	Pin 9 = n/c	Pin 14 = Base 3	Pin 19 = n/c
Pin 5 = Emitter 1	Pin10 =Collector 2	Pin 15 = Emitter 3	Pin 20 =Collector 4

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	60V
V_{CEO}	Collector – Emitter Voltage	60V
V_{EBO}	Emitter – Base Voltage	5V
I_C	Collector Current	600mA
I_V	Isolation Voltage	500V _{DC}
P_D	Total Device Dissipation @ $T_A = 25^\circ\text{C}$ (four devices driven equally)	1W
P_D	Total Device Dissipation@ $T_S^{(1)} = 25^\circ\text{C}$ (four devices driven equally)	2W(2)
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-65 to +200°C
	Soldering Temperature (vapor phase reflow for 30 sec)	215°C
	Soldering Temperaure (heated collect for 5 sec)	260°C



ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
V _{(BR)CEO}	Collector – Emitter Sustaining Voltage I _C = 10mA I _B = 0	60			V
V _{(BR)CBO}	Collector – Base Breakdown Voltage I _C = 10μA I _E = 0	60			V
V _{(BR)EBO}	Emitter – Base Breakdown Voltage I _E = 10μA I _C = 0	5			V
I _{CBO}	Collector – Base Cut-off Current I _E = 0 V _{CB} = 50V T _A = 150°C			10	nA
I _{EBO}	Emitter Base Cut-off Current I _C = 0 V _{EB} = 3.5V			10	μA
				50	nA
ON CHARACTERISTICS					
V _{CE(sat)}	Collector – Emitter Saturation Voltage I _C = 150mA I _B = 15mA ⁽³⁾ I _C = 500mA I _B = 50mA ⁽³⁾			0.4 1.60	V
V _{BE(sat)}	Base – Emitter Saturation Voltage I _C = 150mA I _B = 15mA ⁽³⁾ I _C = 500mA I _C = 50mA ⁽³⁾			1.3 2.6	V
h _{FE}	Forwarded Current Transfer Ratio I _C = 0.1mA V _{CE} = 10V I _C = 1mA V _{CE} = 10V I _C = 10mA V _{CE} = 10V I _C = 150mA ⁽³⁾ V _{CE} = 10V I _C = 500mA ⁽³⁾ V _{CE} = 10V I _C = 10mA V _{CE} = 10V T _A = -55°C	75 100 100 100 50 50	450 300		—
SMALL SIGNAL CHARACTERISTICS					
h _{fe}	Forward Current Transfer Ratio I _C = 1mA V _{CE} = 10V f = 1kHz	100			—
h _{fe1}	Forward Current Transfer Ratio I _C = 50mA V _{CE} = 20V f = 100MHz	2			—
C _{obo}	Open Circuit Output Capacitance V _{CB} = 10V 100kHz ≤ f ≤ 1MHz		8		pF
C _{ibo}	Input Capacitance(output open) V _{EB} = 2V 100kHz ≤ f ≤ 1MHz		30		pF
SWITCHING CHARACTERISTICS					
t _{on}	Turn-On Time V _{CC} = 30V I _C 150mA I _{B1} = 15mA		45		ns
t _{off}	Turn-Off Time V _{CC} = 30V I _C 150mA I _{B1} = I _{B1=15mA}		300		ns

NOTES:

- 1) T_s = Substrate Temperature that the chip carrier is mounted on.
- 2) Derate Linearly 11.4mW/°C above 25°C. This rating is provided as an aid to designers. It is dependent upon mounting material and methods and is not measureable as an outgoing test.
- 3) Pulse Test Pulse Wide ≤ 300μs , Duty Cycle ≤ 2%