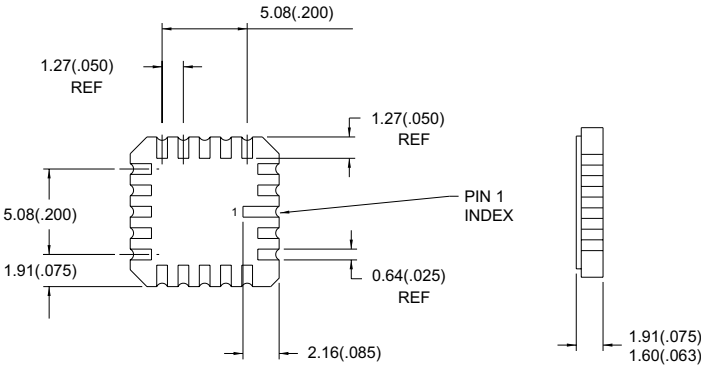
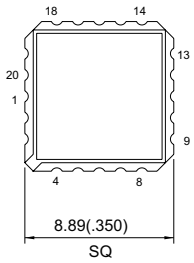
2N2907AQ–LCC20

MECHANICAL DATA
Dimensions in mm (inches)





PACKAGE LCC20

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.

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°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°C (four devices driven equally)	1W
P_D	Total Device Dissipation@ T_S[(1)] = 25°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

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2N2907AQ–LCC20

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			10	nA
			T_A = 150°C			10	µA
I_{EBO}	Emitter Base Cut-off Current	I_C = 0	V_{EB} = 3.5V			50	nA
	ON CHARACTERISTICS						
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA(3)			0.4	V
		I_C = 500mA	I_B = 50mA(3)			1.60	
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA(3)			1.3	V
		I_C = 500mA	I_C = 50mA(3)			2.6	
h_{FE}	Forwared Current Transfer Ratio	I_C = 0.1mA	V_{CE} = 10V	75			—
		I_C = 1mA	V_{CE} = 10V	100	450		
		I_C = 10mA	V_{CE} = 10V	100			
		I_C = 150mA(3)	V_{CE} = 10V	100	300		
		I_C = 500mA(3)	V_{CE} = 10V	50			
		I_C = 10mA	V_{CE} = 10V	50			
			T_A = –55°C				
	SMALL SIGNAL CHARACTERISTICS						
hfe	Forward Current Transfer Ratio	I_C = 1mA	V_{CE} = 10V f = 1kHz	100			—
lhfel	Forward Curent 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		
	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		

NOTES:

1) Ts = Substrate Temperatue that the chip carrier is mounted on.
2) Derate Linearly 11.4mW/°C above 25°C. This rating is proveded 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%

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