

IMH20TR1G

Dual Bias Resistor Transistor

NPN Surface Mount

- Low V_{CC} (sat) 80 mV max at $I_C/I_B = 50$ mA/2.5 mA
- High Current: $I_C = 600$ mA max
- This is a Pb-Free Device

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{(BR)CBO}$	30	Vdc
Collector-Emitter Voltage	$V_{(BR)CEO}$	15	Vdc
Emitter-Base Voltage	$V_{(BR)EBO}$	5.0	Vdc
Collector Current - Continuous	I_C	600	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Power Dissipation*	P_D	300	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

*Total for both Transistors.

Q1 + Q2: NPN

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$ unless otherwise noted)

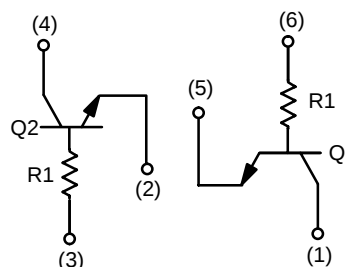
Characteristic	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage ($I_C = 1.0$ mAdc, $I_B = 0$)	$V_{(BR)CEO}$	15	-	Vdc
Collector-Base Breakdown Voltage ($I_C = 50$ μ Adc, $I_E = 0$)	$V_{(BR)CBO}$	30	-	Vdc
Emitter-Base Breakdown Voltage ($I_E = 50$ μ Adc, $I_C = 0$)	$V_{(BR)EBO}$	5.0	-	Vdc
Collector-Base Cutoff Current ($V_{CB} = 20$ Vdc, $I_E = 0$)	I_{CBO}	-	0.5	μ Adc
Emitter-Base Cutoff Current ($V_{EB} = 4.0$ V, $I_C = 0$)	I_{EBO}	-	0.5	μ Adc
DC Current Gain (Note 1) ($V_{CE} = 5.0$ Vdc, $I_C = 50$ mAdc)	h_{FE}	100	600	-
Collector-Emitter Saturation Voltage ($I_C = 50$ mAdc, $I_B = 2.5$ mAdc)	$V_{CE(sat)}$	-	80	mV
Input Resistance	R_1	1.54	2.86	k Ω

1. Pulse Test: Pulse Width ≤ 300 μ s, D.C. $\leq 2\%$.



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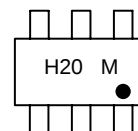


SC-74



SC-74R
318AA
Style 21

MARKING DIAGRAM



H20 = Specific Device Code
M = Date Code

ORDERING INFORMATION

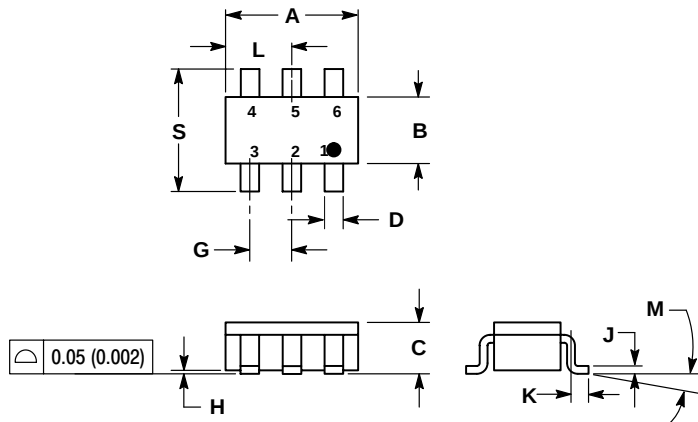
Device	Package	Shipping†
IMH20TR1G	SC-74R	3000/Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

IMH20TR1G

PACKAGE DIMENSIONS

SC-74R CASE 318AA-01 ISSUE A



NOTES:

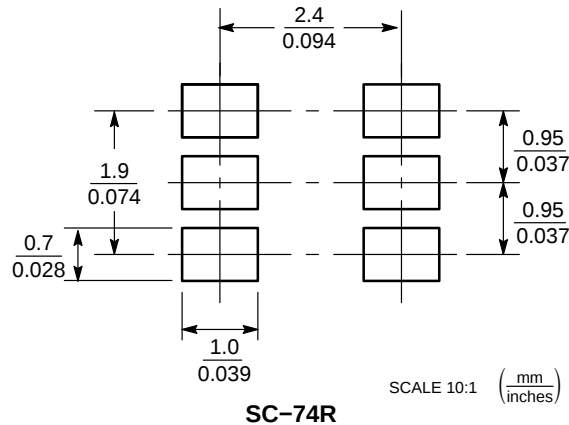
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1142	0.1220	2.90	3.10
B	0.0512	0.0669	1.30	1.70
C	0.0354	0.0433	0.90	1.10
D	0.0098	0.0197	0.25	0.50
G	0.0335	0.0413	0.85	1.05
H	0.0005	0.0040	0.013	0.100
J	0.0040	0.0102	0.10	0.26
K	0.0079	0.0236	0.20	0.60
L	0.0493	0.0649	1.25	1.65
M	0°	10°	0°	10°
S	0.0985	0.1181	2.50	3.00

STYLE 21:

- PIN 1. COLLECTOR 1
- EMITTER 2
- BASE 2
- COLLECTOR 2
- EMITTER 1
- BASE 1

SOLDERING FOOTPRINT*



SC-74R

SCALE 10:1 (mm/inches)

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERM/D.

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