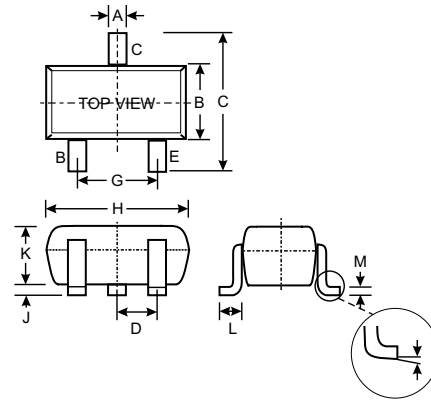


### Features

- Ultra Miniature Surface Mount Package
- Complementary NPN Type Available (2DC4617Q,R,S)

### Mechanical Data

- Case: SOT-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminal Connections: See Diagram
- Marking (See Page 2): 2DA1774Q: 8A  
2DA1774R: 8B  
2DA1774S: 8C
- Ordering & Date Code Information: See Page 2
- Weight: 0.002 grams (approx.)



SOT-523			
Dim	Min	Max	Typ
A	0.15	0.30	0.22
B	0.75	0.85	0.80
C	1.45	1.75	1.60
D	—	—	0.50
G	0.90	1.10	1.00
H	1.50	1.70	1.60
J	0.00	0.10	0.05
K	0.60	0.80	0.75
L	0.10	0.30	0.22
M	0.10	0.20	0.12
N	0.45	0.65	0.50
$\alpha$	0°	8°	—
All Dimensions in mm			

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	2DA1774Q/R/S	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter-Base Voltage	V <sub>EBO</sub>	-6.0	V
Collector Current - Continuous (Note 1)	I <sub>C</sub>	150	mA
Power Dissipation (Note 1)	P <sub>d</sub>	150	mW
Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	833	°C/W
Operating and Storage and Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition	
<b>OFF CHARACTERISTICS (Note 2)</b>						
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-60	—	V	I <sub>C</sub> = -50μA, I <sub>E</sub> = 0	
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-50	—	V	I <sub>C</sub> = 1.0μA, I <sub>B</sub> = 0	
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-6.0	—	V	I <sub>E</sub> = -50μA, I <sub>C</sub> = 0	
Collector Cutoff Current	I <sub>CBO</sub>	—	-100	nA	V <sub>CB</sub> = -60V	
Emitter Cutoff Current	I <sub>EBO</sub>	—	-100	nA	V <sub>EB</sub> = -6.0V	
<b>ON CHARACTERISTICS (Note 2)</b>						
DC Current Gain	2DA1774Q 2DA1774R 2DA1774S	h <sub>FE</sub>	120 180 270	270 390 560	—	V <sub>CE</sub> = -6.0V, I <sub>C</sub> = -1.0mA
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	—	-0.5	V	I <sub>C</sub> = -50mA, I <sub>B</sub> = -5.0mA	
<b>SMALL SIGNAL CHARACTERISTICS</b>						
Output Capacitance	C <sub>obo</sub>	4.0 Typ.	5.0	pF	V <sub>CB</sub> = -12V, f = 1.0MHz, I <sub>E</sub> = 0	
Current Gain-Bandwidth Product	f <sub>T</sub>	140 Typ.	—	MHz	V <sub>CE</sub> = -12V, I <sub>C</sub> = -2.0mA, f = 30MHz	

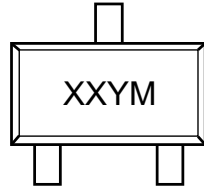
- Notes:
1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
  2. Short duration pulse test used to minimize self-heating effect.

## Ordering Information (Note 3)

Device	Packaging	Shipping
2DA1774Q-7	SOT-523	3000/Tape & Reel
2DA1774R-7	SOT-523	3000/Tape & Reel
2DA1774S-7	SOT-523	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



XX = Product Type Marking Code (See Page 1, e.g. 8A = 2DA1774Q)  
 YM = Date Code Marking  
 Y = Year (ex: N = 2002)  
 M = Month (ex: 9 = September)

Date Code Key

Year	1998	1999	2000	2001	2002	2003	2004
Code	J	K	L	M	N	P	R

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D