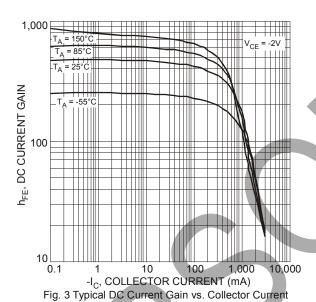


Fig. 1 Power Dissipation vs. Ambient Temperature



1.2

V<sub>CE</sub> = -2V

V<sub>CE</sub> = -2V

0.8

T<sub>A</sub> = -55°C

0.6

T<sub>A</sub> = 25°C

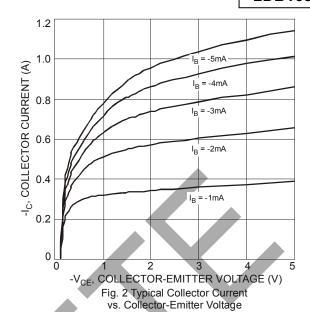
0.1

1 10 100 1,000 10,000

-I<sub>C</sub>, COLLECTOR CURRENT (mA)

Fig. 5 Typical Base-Emitter Turn-On Voltage

vs. Collector Current



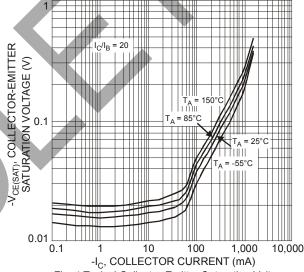


Fig. 4 Typical Collector-Emitter Saturation Voltage vs. Collector Current

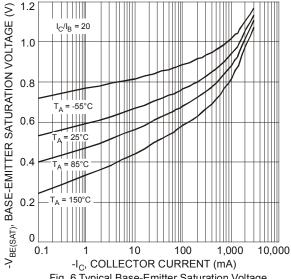
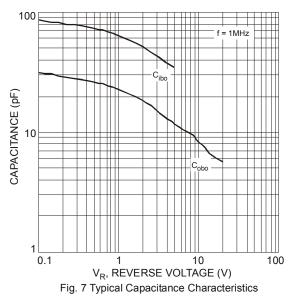


Fig. 6 Typical Base-Emitter Saturation Voltage vs. Collector Current



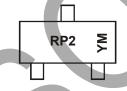


### Ordering Information (Note 6)

| Part Number | Case    | Packaging        |
|-------------|---------|------------------|
| 2DB1689-7   | SOT-323 | 3000/Tape & Reel |

Notes: 6. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

# **Marking Information**

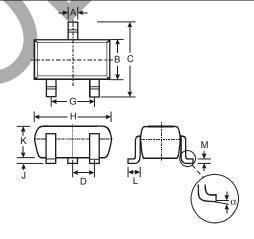


RP2 = Product Type Marking Code YM = Date Code Marking Y = Year (ex: V = 2008) M = Month (ex: 9 = September)

Date Code Key

|       | 2008   | 2009   | 2010 | 2011    | 2012  | 2013   | 2014  | 2015   |
|-------|--------|--------|------|---------|-------|--------|-------|--------|
| Code  | V      | W      | X    | Y       | Z     | Α      | В     | С      |
| Month | Jan Fo | eb Mar | Apr  | May Jun | Jul A | ug Sep | Oct N | ov Dec |
| Code  | 1 :    | 2 3    | 4    | 5 6     | 7     | 8 9    | 1 0   | N D    |

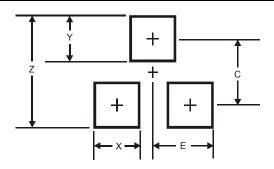
## **Package Outline Dimensions**



| SOT-323              |      |      |      |  |
|----------------------|------|------|------|--|
| Dim                  | Min  | Max  | Тур  |  |
| Α                    | 0.25 | 0.40 | 0.30 |  |
| В                    | 1.15 | 1.35 | 1.30 |  |
| С                    | 2.00 | 2.20 | 2.10 |  |
| D                    | -    | -    | 0.65 |  |
| G                    | 1.20 | 1.40 | 1.30 |  |
| I                    | 1.80 | 2.20 | 2.15 |  |
| 7                    | 0.0  | 0.10 | 0.05 |  |
| K                    | 0.90 | 1.00 | 1.00 |  |
| L                    | 0.25 | 0.40 | 0.30 |  |
| M                    | 0.10 | 0.18 | 0.11 |  |
| α                    | 0°   | 8°   | -    |  |
| All Dimensions in mm |      |      |      |  |



## Suggested Pad Layout



| Dimensions | Value (in mm) |
|------------|---------------|
| Z          | 2.8           |
| Х          | 0.7           |
| Y          | 0.9           |
| С          | 1.9           |
| E          | 1.0           |



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