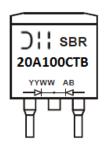


Marking Information



Dil= Manufacturer's Marking
SBR20A100CTB = Product Type Marking Code
AB = Foundry and Assembly Code
YYWW = Date Code Marking
YY = Last Two Digits of Year (ex: 20 = 2020)
WW = Week (01 to 53)

Maximum Ratings (Per Leg) (@TA = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | | Symbol | Value | Unit | |
|---|----------------------|---|----------|------|--|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | | V _{RRM} V _{RWM} V _{RM} | 100 | V | |
| Average Rectified Output Current | (Per Leg) (Total) | Io | 10 20 | А | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load | | I _{FSM} | 250 | А | |
| Peak Repetitive Reverse Surge Current (2µs-1KHz) | | I _{RRM} | 3 | Α | |

Thermal Characteristics (Per Leg)

| Characteristic | Symbol | Value | Unit |
|--|-----------------------------------|-------------|------|
| Typical Thermal Resistance Junction to Case (Per Leg) (Note 5) | $R_{	heta JC}$ | 5 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +175 | °C |

Electrical Characteristics (Per Leg) (@T_A = +25°C, unless otherwise specified.)

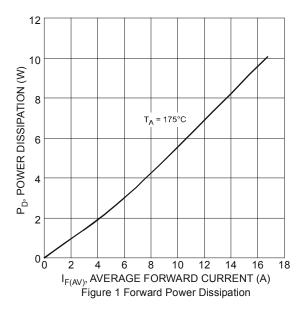
| Characteristic | Symbol | Min | Тур | Max | Unit | Test Condition |
|--------------------------|----------------|-----|------|------|------|--|
| Forward Voltage Drop | | _ | _ | 0.75 | | I _F = 10A, T _J = +25°C |
| | V _F | _ | 0.60 | 0.64 | | I _F = 10A, T _J = +125°C |
| | | _ | _ | 0.85 | | I _F = 20A, T _J = +25°C |
| Leakage Current (Note 6) | | _ | _ | 0.1 | mΛ | V _R = 100V, T _J = +25°C |
| | IR | _ | _ | 40 | mA | V _R = 100V, T _J = +125°C |

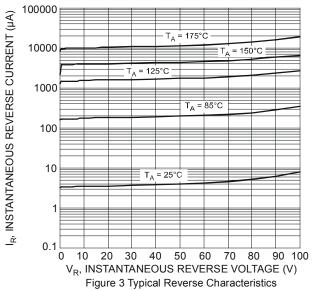
Notes: 5. Device mounted on Aluminum substrate 2inch square.

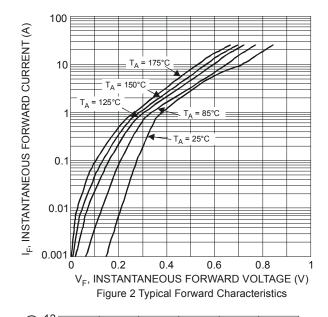
6. Short duration pulse test used to minimize self-heating effect.

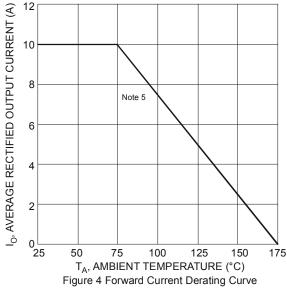










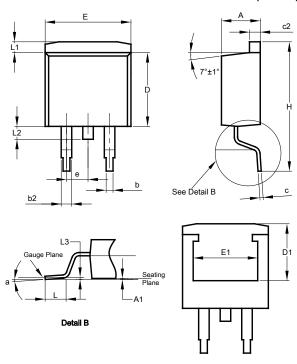




Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

TO263AB (D2PAK)

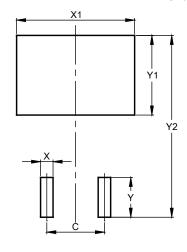


| TO263AB (D2PAK) | | | |
|----------------------|----------|-------|-------|
| Dim | Min | Max | Тур |
| Α | 4.07 | 4.82 | - |
| A1 | 0.00 | 0.25 | - |
| b | 0.51 | 0.99 | - |
| b2 | 1.15 | 1.77 | - |
| С | 0.356 | 0.73 | - |
| c2 | 1.143 | 1.65 | - |
| D | 8.39 | 9.65 | - |
| D1 | 6.55 | 6.95 | - |
| е | 2.54 TYP | | |
| Е | 9.66 | 10.66 | - |
| E1 | 6.23 | 8.23 | - |
| I | 14.61 | 15.87 | - |
| L | 1.78 | 2.79 | - |
| L1 | 1 | 1.67 | - |
| L2 | - | 1.77 | - |
| L3 | - | - | 0.254 |
| а | 0° | 8° | - |
| All Dimensions in mm | | | |

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

TO263AB (D2PAK)



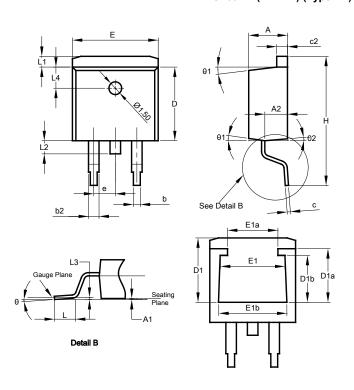
| Dimensions | Value (in mm) |
|------------|---------------|
| C | 5.08 |
| Х | 1.10 |
| X1 | 10.41 |
| Y | 3.50 |
| Y1 | 7.01 |
| Y2 | 15 99 |



Package Outline Dimensions (Cont.)

Please see http://www.diodes.com/package-outlines.html for the latest version.

TO263AB (D2PAK) (Type TH)

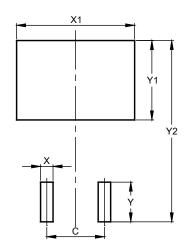


| TO263AB (D2PAK) | | | |
|----------------------|----------|-------|-------|
| (Type TH) | | | |
| Dim | Min | Max | Тур |
| Α | 4.40 | 4.70 | 4.57 |
| A1 | 0.00 | 0.20 | 0.10 |
| A2 | 2.59 | 2.79 | 2.69 |
| b | 0.77 | 0.90 | 0.813 |
| b2 | 1.20 | 1.36 | 1.27 |
| С | 0.356 | 0.47 | 0.381 |
| c2 | 1.22 | 1.32 | 1.27 |
| D | 8.60 | 8.80 | 8.70 |
| D1 | 6.60 | 7.80 | 7.60 |
| D1a | 5.33 | 6.53 | 6.33 |
| D1b | 4.54 | 5.74 | 5.54 |
| е | 2.54 BSC | | |
| Е | 10.00 | 10.20 | 10.10 |
| E1 | 6.67 | 7.87 | 7.67 |
| E1a | 4.94 | 6.14 | 5.94 |
| E1b | 7.06 | 8.26 | 8.06 |
| Н | 14.70 | 15.50 | 15.10 |
| L | 2.00 | 2.60 | 2.30 |
| L1 | 1.17 | 1.40 | 1.27 |
| L2 | 1.45 | 1.70 | 1.55 |
| L3 | 0.25 BSC | | |
| L4 | 2.50 REF | | |
| θ | 0° | 8° | 5° |
| θ1 | 5° | 9° | 7° |
| θ2 | 1° | 5° | 3° |
| All Dimensions in mm | | | |

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

TO263AB (D2PAK) (Type TH)



| Dimensions | Value (in mm) |
|------------|---------------|
| С | 5.08 |
| Х | 1.10 |
| X1 | 10.41 |
| Y | 3.50 |
| Y1 | 7.01 |
| Y2 | 15.99 |



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