

# Technical Data

## DIODE



### maximum ratings

|                                        |       |      |      |               |
|----------------------------------------|-------|------|------|---------------|
| Voltage, Reverse (VR)                  | 125.0 | V    | NO.  | 1N5810        |
| Voltage, Reverse Peak (VRM)            | 135.0 | V    | TYPE | FAST-RECOVERY |
| Current at VR = 0V (IO)                |       | A    |      |               |
| Current Average Rectified (IF)         | 6.0   | A    |      |               |
| Current Surge Peak (IZM)               |       | A    | CASE | SOD-64_1.3MM  |
| Current, Surge (IFM) at tp = 8.3 ms    | 125.0 | A    |      |               |
| Max. Power Dissipation (PT) at TC = °C |       | W    |      |               |
| Max. Thermal Resistance (Rth J-A)      | 30.0  | °C/W |      |               |
| Max. Junction Temperature (TJ)         | 175.0 | °C   |      |               |

### PERFORMANCE CHARACTERISTICS at $T_c = 25^\circ\text{C}$ , unless otherwise noted

| NO. | SYMBOL | CONDITIONS                  | MIN. | MAX.  | UNITS         |
|-----|--------|-----------------------------|------|-------|---------------|
| 1.  | IR     | VR = 125.0 V                | -    | 5.0   | $\mu\text{A}$ |
| 2.  | IR     | VR = 125.0 V, TA = 100.0° C | -    | 150.0 | $\mu\text{A}$ |
| 3.  | VF     | IF = 4.0 A (1)              | -    | 0.875 | V             |
| 4.  | CT     | VR = 10.0 V (2)             | -    | 45.0  | pF            |
| 5.  | trr    | IF = 1.0 A, ir = 0.1 A      | -    | 30.0  | ns            |
| 6.  |        |                             |      |       |               |
| 7.  |        |                             |      |       |               |
| 8.  |        |                             |      |       |               |
| 9.  |        |                             |      |       |               |
| 10. |        |                             |      |       |               |
| 11. |        |                             |      |       |               |
| 12. |        |                             |      |       |               |
| 13. |        |                             |      |       |               |
| 14. |        |                             |      |       |               |
| 15. |        |                             |      |       |               |
| 16. |        |                             |      |       |               |
| 17. |        |                             |      |       |               |
| 18. |        |                             |      |       |               |
| 19. |        |                             |      |       |               |
| 20. |        |                             |      |       |               |

Notes (1)typical value  
(2)pulse-tested  $t_p \leq 300 \mu\text{s}$ , duty cycle  $\leq 2\%$

DIMENSIONS  
in mm

Marking 5810  
Customer GENERAL PURPOSE

