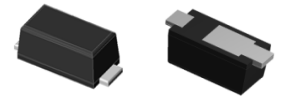


Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low leakage current
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGA
 (SOD-123HS)



RoHS
 COMPLIANT

Absolute Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | PSL14 | Unit |
|--|-------------|---------------|------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 40 | V |
| Maximum RMS voltage | V_{RMS} | 28 | V |
| Maximum DC blocking voltage | V_{DC} | 40 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 1.0 | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 40 | A |
| Rating for fusing ($t < 8.3\text{ms}$) | I^2t | 6.7 | A^2sec |
| Operating junction temperature range | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Test Conditions | Symbol | Typ. | Max | Unit |
|--|--|----------------------|-------|-------|--------------------|
| Minimum breakdown voltage | $T_A=25^\circ\text{C}, I_R=1\text{mA}$ | V_{BR} | 40 | | Volts |
| Instantaneous forward voltage | 1A, $T_A=25^\circ\text{C}$ | V_F | 0.42 | 0.45 | |
| | 1A, $T_A=125^\circ\text{C}$ | | 0.34 | 0.40 | |
| Reverse current at rated DC blocking voltage | $T_A=25^\circ\text{C}$ | I_R | 22.0 | 200.0 | μA |
| | $T_A=125^\circ\text{C}$ | | 10.00 | 20 | mA |
| Typical junction capacitance | 4.0 V, 1 MHz | C_J | 55 | | pF |
| Typical thermal resistance | junction to ambient | $R_{\theta JA}^{1)}$ | 65 | | $^\circ\text{C/W}$ |
| | junction to lead | $R_{\theta JL}^{1)}$ | 9 | | |
| | junction to case | $R_{\theta JC}^{2)}$ | 35 | | |

Note:1),The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

2),The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads,2 OZ,FR4 PCB

Typical Electrical Characteristic Curves

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

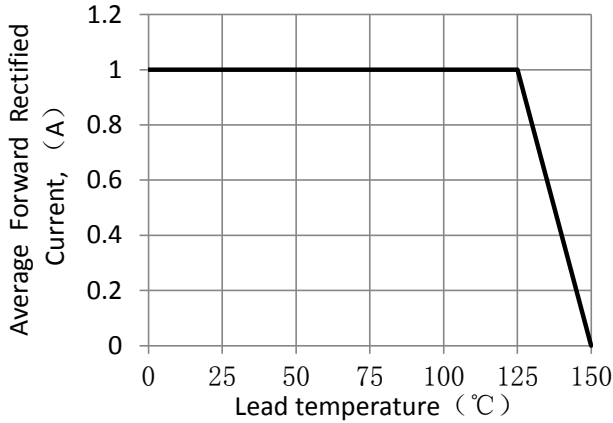


Figure 1. Forward Current Derating Curve

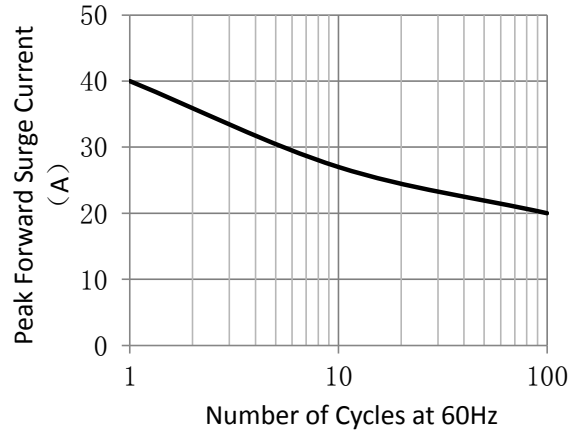


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

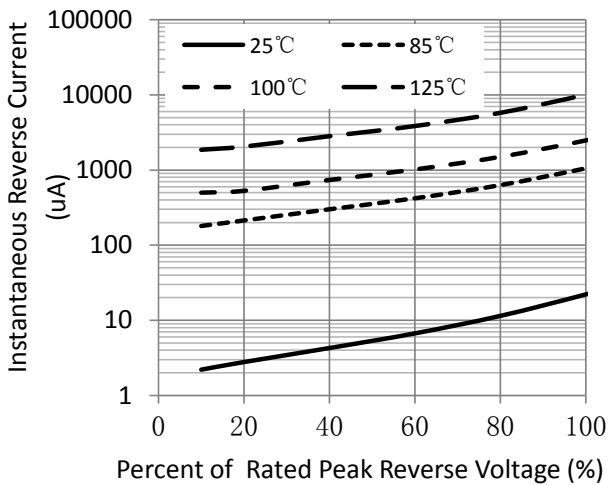


Figure 3. Typical Reverse Characteristics

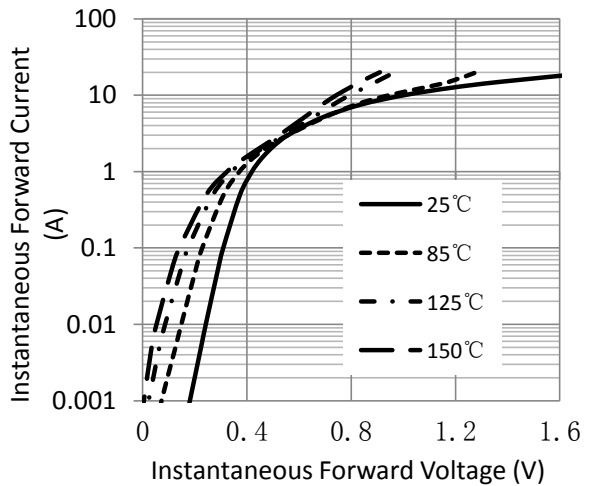


Figure 4. Typical Instantaneous Forward Characteristics

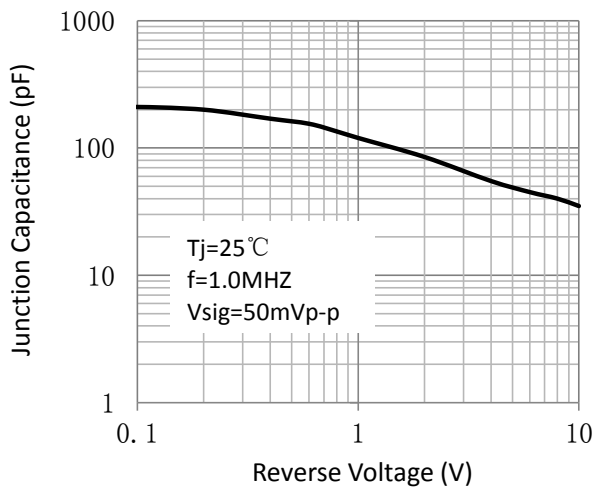
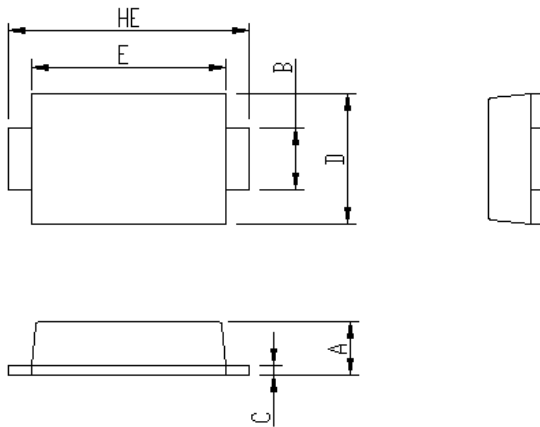


Figure 5. Typical Junction Capacitance

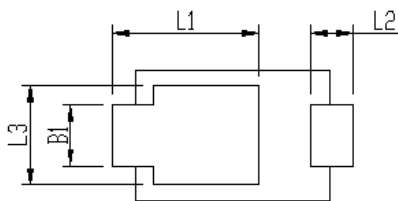
Package Outline Dimensions

Package: iSGA

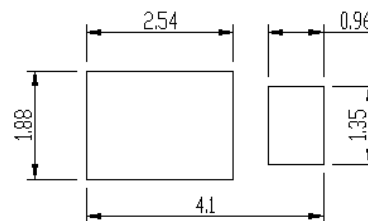
(SOD-123HS)



| Package | iSGA | |
|---------|------|------|
| Unit:mm | MIN | MAX |
| A | 0.75 | 0.90 |
| B | 0.85 | 1.05 |
| B1 | 0.85 | 1.05 |
| C | 0.1 | 0.25 |
| D | 1.9 | 2.1 |
| E | 2.9 | 3.1 |
| L1 | 2.0 | 2.45 |
| L2 | 0.4 | 0.85 |
| L3 | 1.3 | 1.7 |
| HE | 3.5 | 3.9 |



Soldering footprint



Packing Information

Packing Quantities

| Reel size | Quantity/reel | Quantity/inner Box | Quantity/Carton |
|-----------|---------------|--------------------|-----------------|
| 7" | 3K | 30K | 120K |

Tape & Reel Specification

