

**Micro Commercial Components** 



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### **Features**

- Halogen free available upon request by adding suffix "-HF" High Surge Capability Low Forward Voltage

- Low Profile Package
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

#### **Mechanical Data**

- Packaging: SOD-123FL
- Marking Code: SMD22PL---M2; SMD24PL---M4; SMD26PL---M6 SMD28PL---M8; SMD210PL---M10;

# **Maximum Ratings**

| Symbol                            | Parameter                                  | Rating      | Unit |
|-----------------------------------|--------------------------------------------|-------------|------|
|                                   | Maximum RMS Voltage SMD22PL                | 14          |      |
| $V_{RMS}$                         | SMD24PL                                    | 28          | V    |
|                                   | SMD26PL                                    | 42          |      |
|                                   | SMD28PL                                    | 56          |      |
|                                   | SMD210PL                                   | 70          |      |
|                                   | Repetitive Peak Reverse Voltage SMD22PL    | 20          |      |
| $V_{RRM}$                         | SMD24PL                                    | 40          | V    |
|                                   | SMD26PL                                    | 60          |      |
|                                   | SMD28PL                                    | 80          |      |
|                                   | SMD210PL                                   | 100         |      |
|                                   | Rectified Current (Average) Half Wave      |             |      |
| $I_{F(AV)}$                       | Rectification with Resist. Load at TL=90°C | 2.0         | Α    |
| I <sub>FSM</sub>                  | Surge Forward Current, halfsine wave 8.3ms | 50          | Α    |
| Rhja                              |                                            | 60          | %C/W |
| Rhjc                              | Typical Thermal Resistance(Note2)          | 30          | %C/W |
| RthJL                             |                                            | 21          | .c/M |
| $P_{D}$                           | Power Dissipation                          | 1.68        | W    |
|                                   | Junction and Storage SMD22PL~SMD26PL       | -65 to +125 | °C   |
| T <sub>J</sub> , T <sub>stg</sub> | Temperature SMD28PL~SMD210PL               | -65 to +150 | °C   |

# Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol         | Parameter                                       |               | Min | Тур | Max  | Units |
|----------------|-------------------------------------------------|---------------|-----|-----|------|-------|
| $V_{F}$        | Forward Voltag                                  | SMD22PL~24PL  |     |     | 0.50 | V     |
|                | (@2A dc)                                        | SMD26PL       |     |     | 0.70 | V     |
|                |                                                 | SMD28PL~210PL | -   |     | 0.85 |       |
| l <sub>R</sub> | Maximum DC Reverse Current                      |               | 1   | 1   | 0.5  | mA    |
| C <sub>j</sub> | Typical Junction Capacitance<br>@f=1.0MHz,Vr=4V |               |     | 210 |      | pF    |

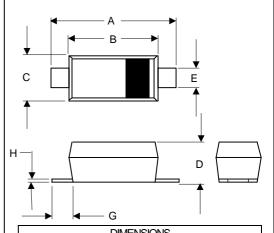
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

### 2. Thermal Resistance:PC Board Mounted on 0.2\*0.2"(5\*5mm) copper pad area.

# SMD22PL **THRU** SMD210PL

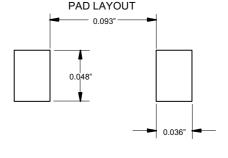
# **Schottky Barrier Diodes** 20 to 100 Volts

# SOD-123FL



| DIIVIENSIONS |        |      |      |      |      |
|--------------|--------|------|------|------|------|
| DIM          | INCHES |      | MM   |      | NOTE |
|              | MIN    | MAX  | MIN  | MAX  |      |
| Α            | .140   | .152 | 3.55 | 3.85 |      |
| В            | .100   | .122 | 2.55 | 3.10 |      |
| С            | .055   | .075 | 1.40 | 1.90 |      |
| D            | .035   | .053 | 0.90 | 1.35 |      |
| Е            | .020   | .041 | 0.50 | 1.05 |      |
| G            | .010   |      | 0.25 |      |      |
| Н            |        | .010 |      | .25  |      |

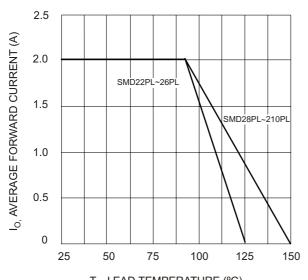
# SUGGESTED SOLDER



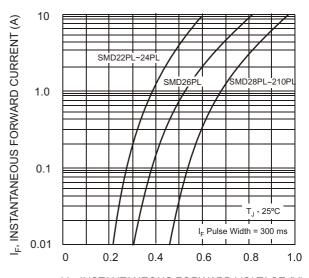
# SMD22PL~SMD210PL



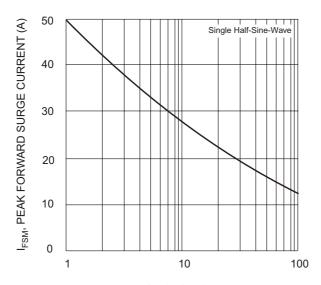
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T<sub>L</sub>, LEAD TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Forward Surge Current



### **Ordering Information:**

| Device         | Packing                 |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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