

DSH14L

1.0AMP. SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

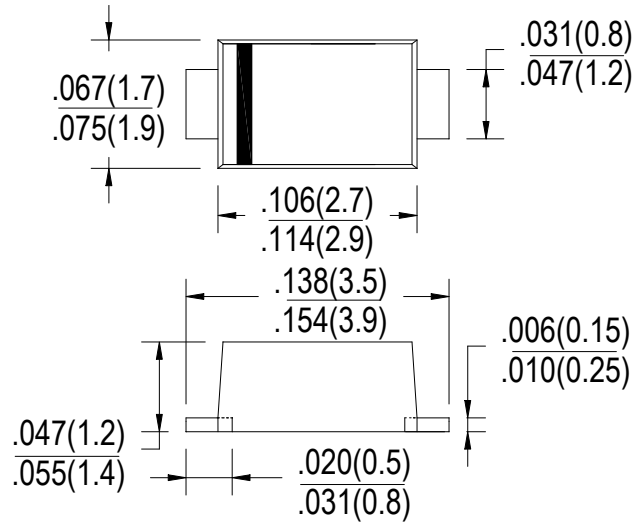
FEATURES

- For surface mounted application
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds at terminals.

MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram
- Mounting position: Any

SOD-123FL



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Type Number | SYM BOL | DSH14L | units |
|--|-------------|-------------|---------------------------|
| | marking | D14L | |
| Maximum Recurrent 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 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | 30.0 | A |
| Maximum Instantaneous forward Voltage @ 1.0 A DC | V_F | 0.60 | V |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$ | I_R | 0.01 | mA |
| | | 5.0 | |
| Typical Junction Capacitance (Note 1) | C_J | 120 | pF |
| Typical thermal resistance (Note 2) | $R_{(JA)}$ | 180 | $^\circ\text{C}/\text{W}$ |
| | $R_{(JC)}$ | 28 | |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |
| Operation Temperature Range | T_J | -55 to +150 | $^\circ\text{C}$ |

Note:

1. Measured at 1MHz and applied reverse voltage of 4.0 volts d.c.
2. Measured on P.C.Board with 0.2×0.2”(5.0×5.0mm)Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (DSH14L)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

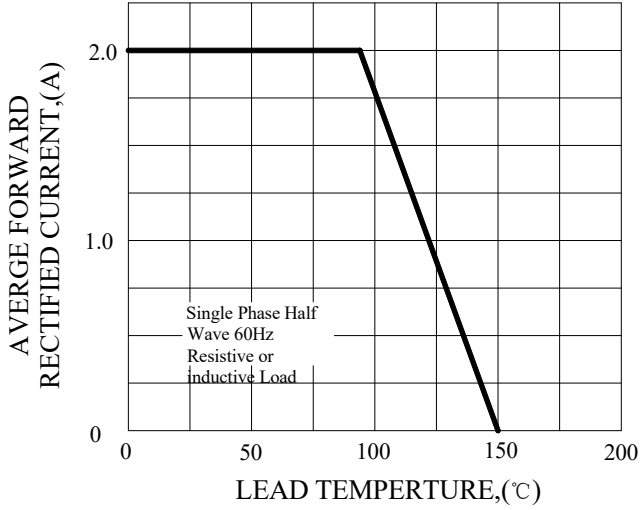


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

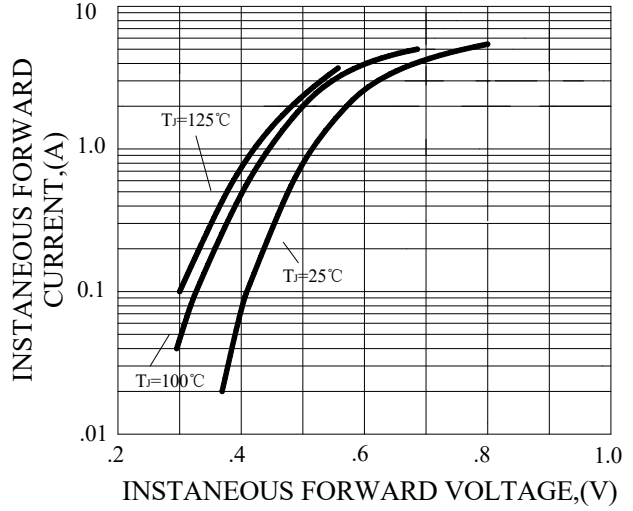


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

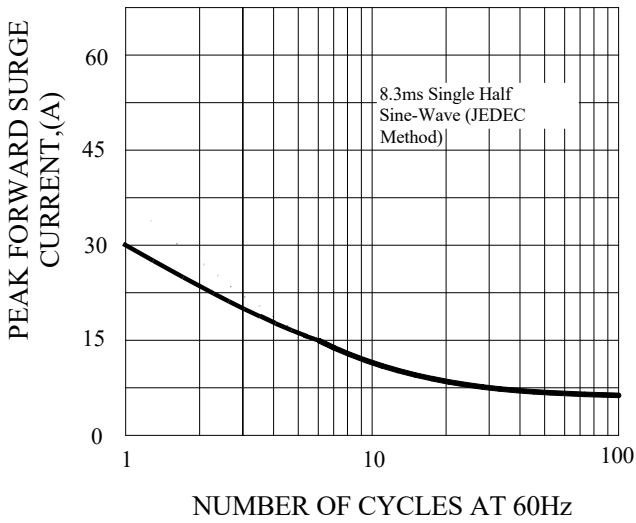
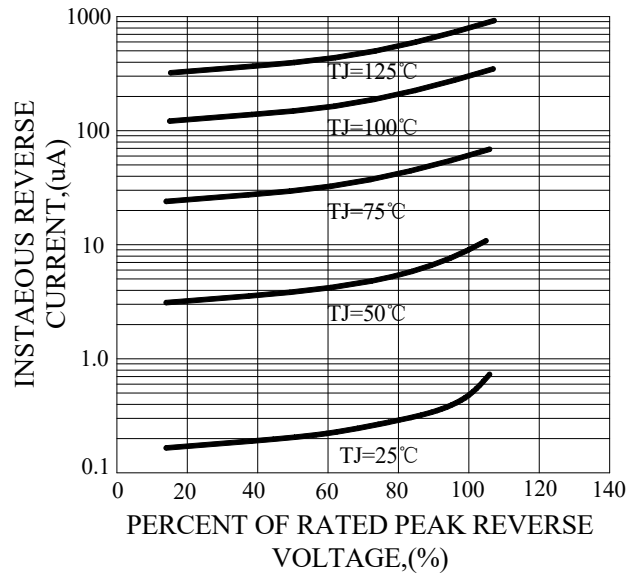
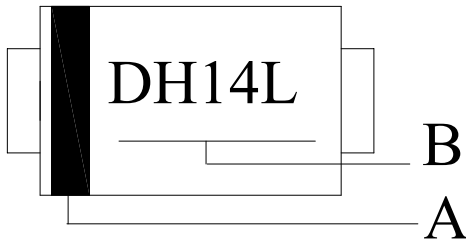


FIG.4-TYPICAL REVERSE CHARACTERISTICS



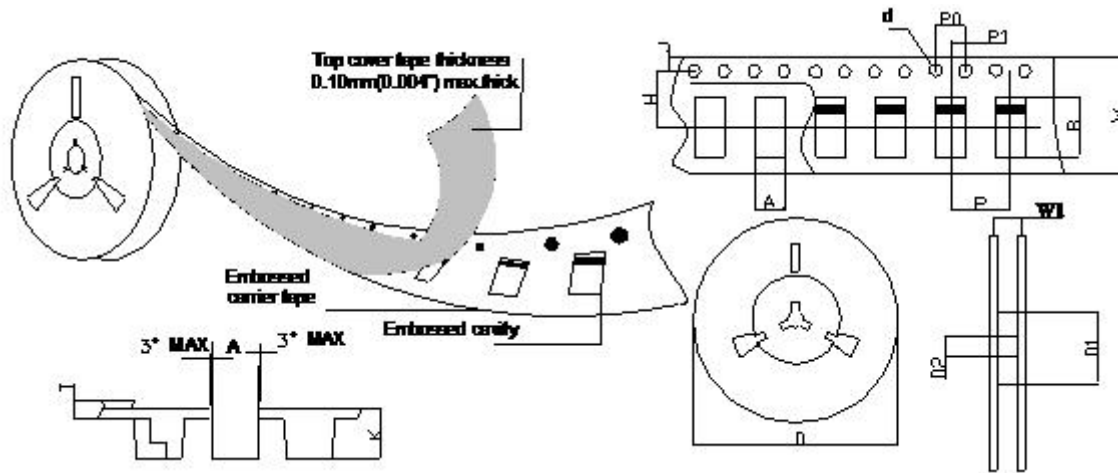
Marking and packaging illustration

1、Marking



| SYMBOL | Explanation |
|--------|----------------------------|
| A | Color Band Denotes Cathode |
| B | Product Name |

2、Packaging



| SPECIFICATIONS mm(inch) | | PACKAGE | SPECIFICATIONS mm(inch) | | PACKAGE |
|----------------------------|------------|-----------------|----------------------------|------------|----------------|
| ITEM | SYM BOL | SOD-123FL | ITEM | SYM BOL | SOD-123FL |
| Carrier width | A | 2.1(0.083)Max | Carrier depth | K | 1.60(0.063)Typ |
| Carrier length | B | 4.0(0.157)Max | Punch hole pitch | P | 4.00(0.157)Typ |
| Sprocket hole | d | ø1.55(0.061)Typ | Sprocket hole pitch | P0 | 4.00(0.157)Typ |
| Reel outer diameter | D | 177.8(7)Typ | Embossment center | P1 | 2.00(0.079)Typ |
| Reel inner diameter | D1 | 50.0(1.969)Min | Overall tape thickness | T | 0.25(0.098)Typ |
| Feed hole diameter | D2 | 13.0(0.512)Typ | Tape width | W | 8.15(0.321)Typ |
| Sprocket hole position | J | 1.75(0.069)Typ | Reel width | W1 | 10.5(0.413)Min |
| Punch hole position | H | 3.50(0.138)Typ | | | |