

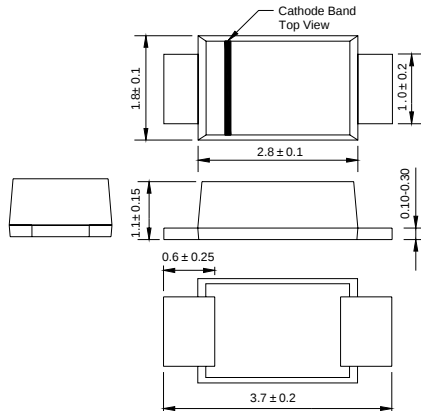


# DHE1A THRU DHE1M

## SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts    Forward Current - 1.0 Ampere

### SOD-123FL



Dimensions in millimeters

### FEATURES

- ◆ Glass passivated device
- ◆ Ideal for surface mounted applications
- ◆ Low reverse leakage
- ◆ Metallurgically bonded construction
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC SOD-123FL molded plastic body over passivated chip  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.0007 ounce, 0.02 grams

### 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 current derate by 20%.

| MDD Catalog Number                                                                                     | SYMBOLS          | DHE1A<br>U1A | DHE1B<br>U1B | DHE1D<br>U1D | DHE1G<br>U1G | DHE1J<br>U1J | DHE1K<br>U1K | DHE1M<br>U1M | UNITS |
|--------------------------------------------------------------------------------------------------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| Maximum repetitive peak reverse voltage                                                                | V <sub>RRM</sub> | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | VOLTS |
| Maximum RMS voltage                                                                                    | V <sub>RMS</sub> | 35           | 70           | 140          | 280          | 420          | 560          | 700          | VOLTS |
| Maximum DC blocking voltage                                                                            | V <sub>DC</sub>  | 50           | 100          | 200          | 400          | 600          | 800          | 1000         | VOLTS |
| Maximum average forward rectified current<br>at Ta=65°C                                                | I <sub>AV</sub>  | 1.0          |              |              |              |              |              |              | Amp   |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub> | 25.0         |              |              |              |              |              |              | Amps  |
| Maximum instantaneous forward voltage at1.0A                                                           | V <sub>F</sub>   | 1.0          |              |              | 1.4          | 1.7          |              |              | Volts |
| Maximum DC reverse current    Ta=25°C<br>at rated DC blocking voltage    Ta=100°C                      | I <sub>R</sub>   | 5.0<br>100.0 |              |              |              |              |              |              | μA    |
| Maximum reverse recovery time (NOTE 1)                                                                 | trr              | 50           |              |              |              | 75           |              |              | ns    |
| Typical thermal resistance                                                                             | RθJA             | 180          |              |              |              |              |              |              | °C/W  |
| Operating junction and storage temperature range                                                       | TJ,TSTG          | -50 to +150  |              |              |              |              |              |              | °C    |

**Note:** 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .



# RATINGS AND CHARACTERISTIC CURVES DHE1A THRU DHE1M

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

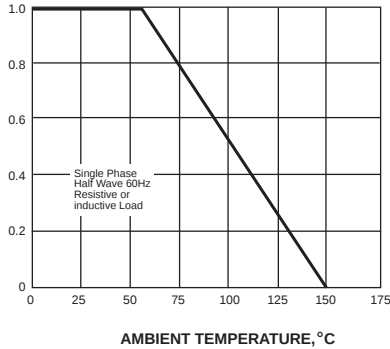


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT,  
AMPERES

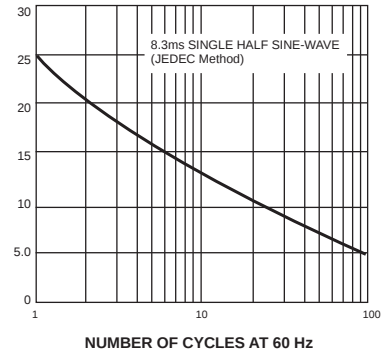


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

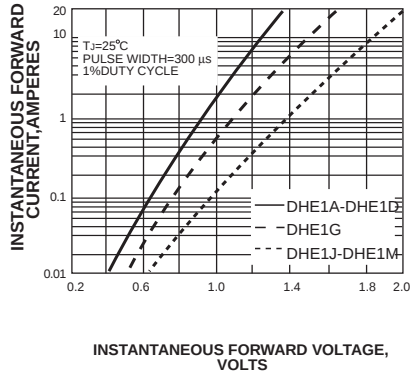
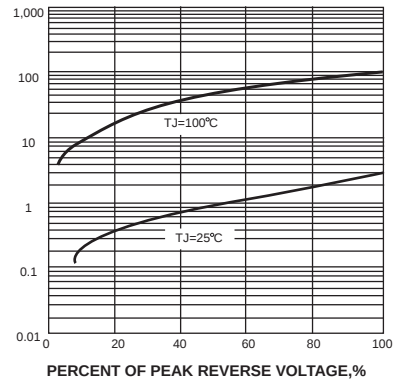


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



www.rms-codetec.com