DHE1A~DHE1M

Surface Mount High Efficiency Recovery rectifiers

Major Ratings and Characteristics

$I_{F(AV)}$	1.0 A
V_{RRM}	50 V to 1000 V
I_{FSM}	25 A
I_R	5 μA
V_F	1.0V，1.3V，1.7V
T_J max.	150 °C



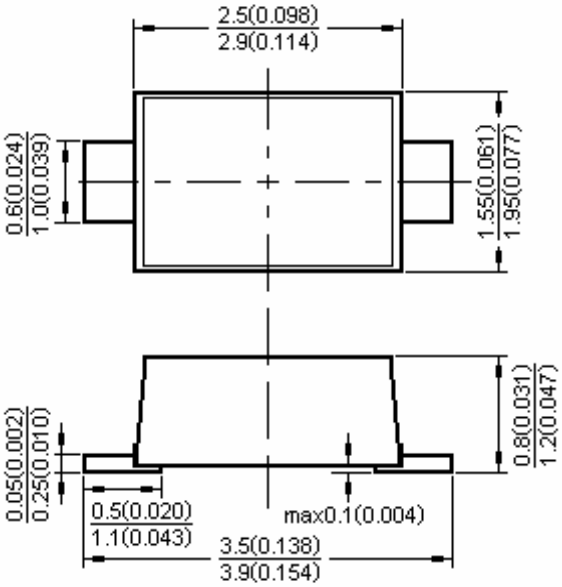
Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** JEDEC SOD-123FL molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end
- **Weight:** 0.017gram

SOD-123FL



Dimensions in millimeters and (inches)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

	Symbol	DHE 1A	DHE 1B	DHE 1D	DHE 1F	DHE 1G	DHE 1J	DHE 1K	DHE 1M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1								A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	25								A
Maximum instantaneous forward voltage at 1.0A	V_F	1.0			1.3		1.7			V
Maximum DC reverse current T_A = 25 ℃ at Rated DC blocking voltage T_A = 100℃	I_R	5.0 100								μA
Maximum reverse recovery time at I_F = 0.5 A , I_R = 1.0 A , I_{rr} = 0.25 A	t_{rr}	50					75			nS
Thermal resistance from junction to ambient(Note1)	$R_{\theta JA}$	150								℃/ W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150								℃

Note1：Mounted on P.C.Board with 0.9*1.5mm^2 copper pad area.

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

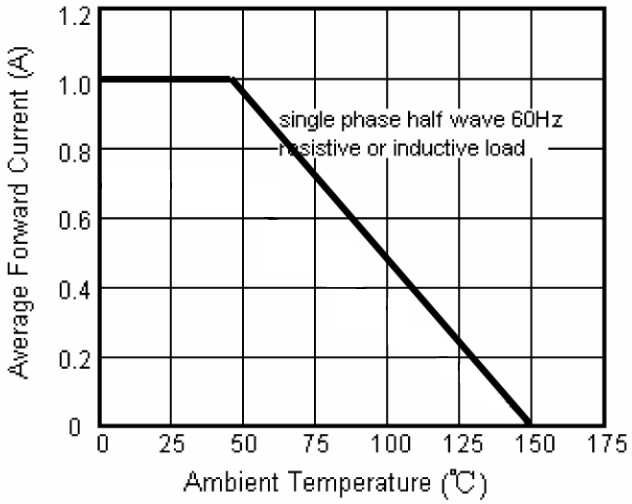


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

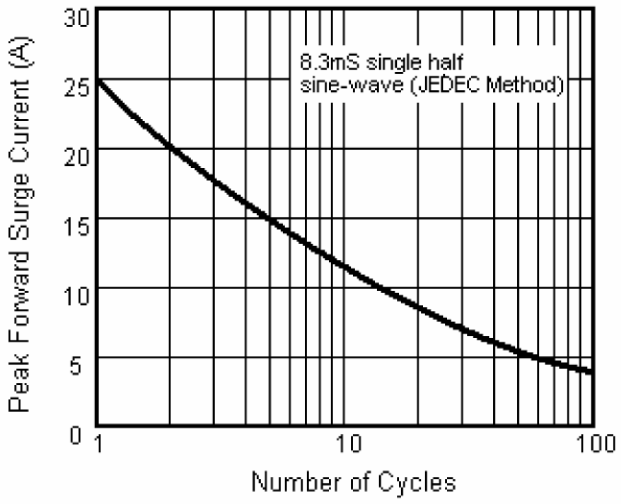


Fig.3 Typical Instantaneous Forward Characteristics

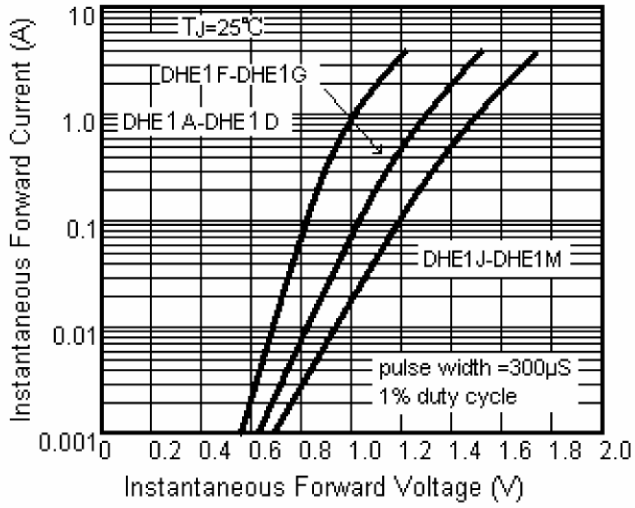


Fig.4 Typical Reverse Characteristics

