



DHE1A THRU DHE1M

Surface Mount Ultra Fast Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

FEATURES

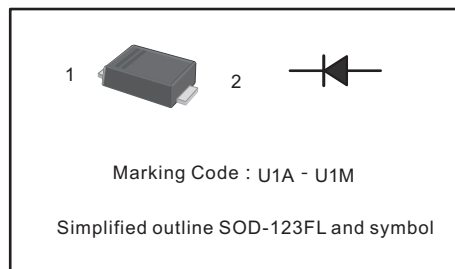
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- High efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	DHE1A	DHE1B	DHE1D	DHE1G	DHE1J	DHE1K	DHE1M	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta = 65 °C	I _{F(AV)}	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage Ta = 25 °C Ta =125 °C	I _R	5 100							μA
Maximum Reverse Recovery Time ¹⁾	t _{rr}	50				75			ns
Typical Thermal Resistance	R _{θJA}	85							°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C

1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$





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

Fig.1 Forward Current Derating Curve

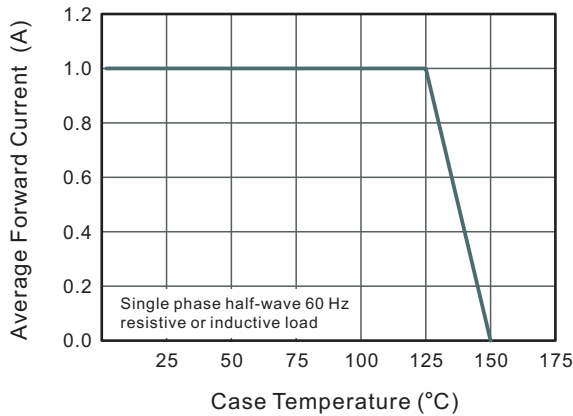


Fig.2 Typical Reverse Characteristics

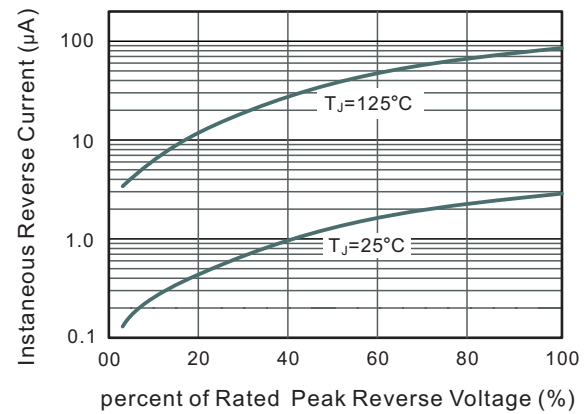


Fig.3 Typical Instantaneous Forward Characteristics

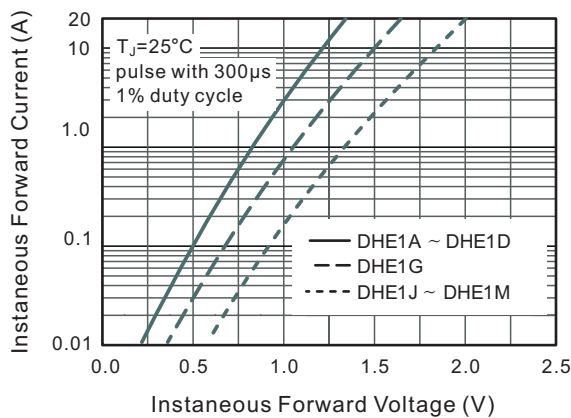
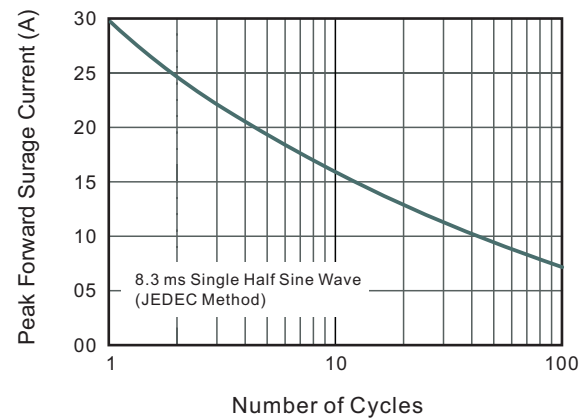


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





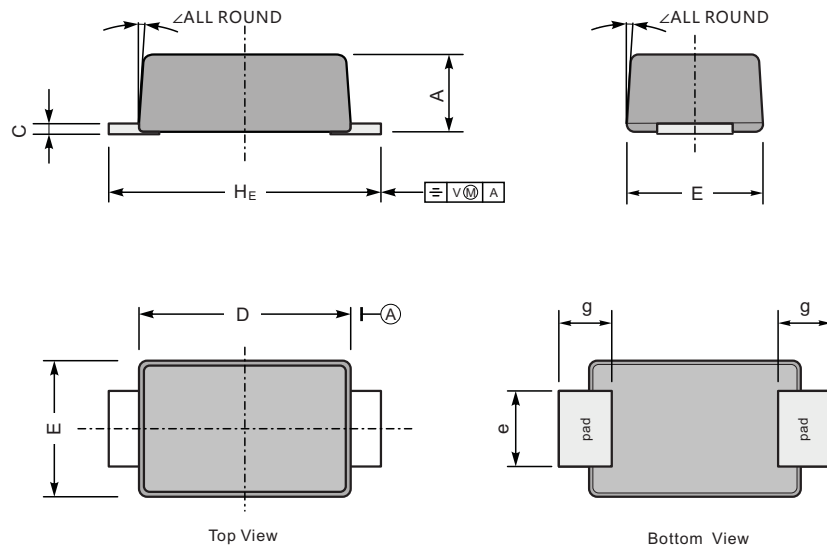
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PACKAGE OUTLINE

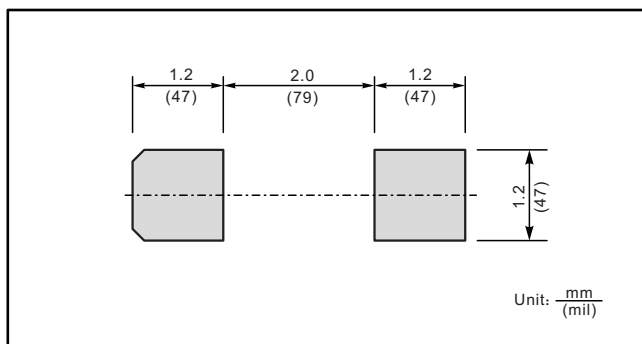
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.30	0.20	2.9	1.95	1.1	0.9	3.8	7°
	min	1.00	0.12	2.6	1.60	0.7	0.7	3.5	
mil	max	51.2	7.9	114	77	43	35	150	
	min	39.4	4.7	102	63	31	27.6	138	

The recommended mounting pad size



Marking

Type number	Marking code
DHE1A	U1A
DHE1B	U1B
DHE1D	U1D
DHE1G	U1G
DHE1J	U1J
DHE1K	U1K
DHE1M	U1M