

## 3.0A Low VF Surface Mount Schottky Barrier Rectifiers 40V-100V

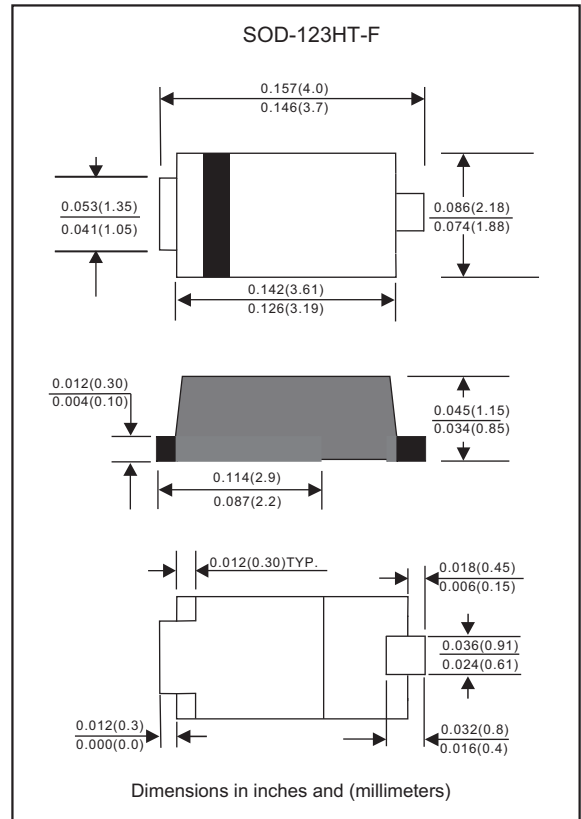
### Features

- Ideal for automated placement
- Low profile surface mounted application in order to optimize board space
- Tiny plastic SMD package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

### Mechanical data

- Package: SOD-123HT-F, Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals : Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity : Cathode line denotes the cathode end
- Mounting Position : Any

### Package outline



### Maximum ratings (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	DSL34-MHT-F-Q1	DSL36-MHT-F-Q1	DSL310-MHT-F-Q1	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	60	100	V
Maximum average forward rectified current @60Hz half -sine wave, 1 cycle, $T_J=25^\circ\text{C}$	$I_o$	3.0			A
Non-repetitive peak forward surge current @60Hz half -sine wave, 1 cycle, $T_J=25^\circ\text{C}$	$I_{FSM}$	60			A
Operating junction temperature range	$T_J$	-55 to +150			$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ\text{C}$

### Electrical characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	DSL34-MHT-F-Q1	DSL36-MHT-F-Q1	DSL310-MHT-F-Q1	UNITS
Maximum instantaneous forward voltage at $I_F=3.0\text{A}$	$V_F$	0.45	0.50	0.60	V
Maximum reverse leakage current at $V_{RM}=V_{RRM}$	$I_R$	$T_A=25^\circ\text{C}$ 0.5 $T_A=100^\circ\text{C}$ 10		0.1 5	$\text{mA}$ $\text{mA}$

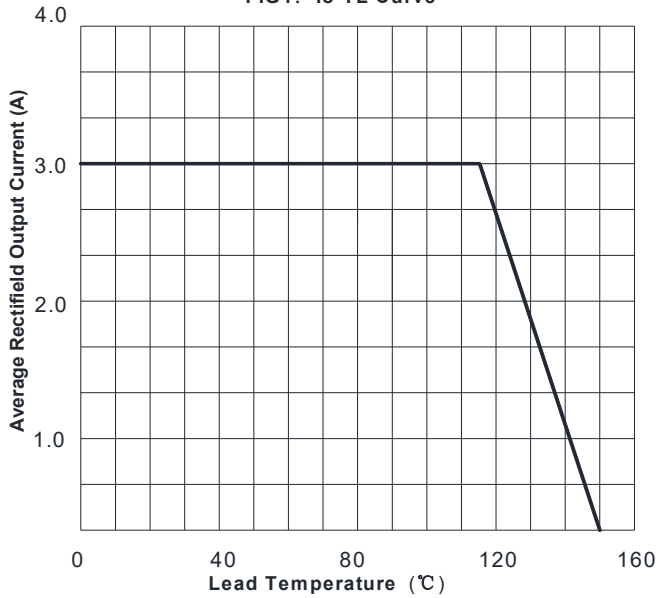
### Thermal characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOLS	DSL34-MHT-F-Q1	DSL36-MHT-F-Q1	DSL310-MHT-F-Q1	UNITS
Thermal resistance junction to ambient	$R_{\theta JA}$	80			$^\circ\text{C}/\text{W}$

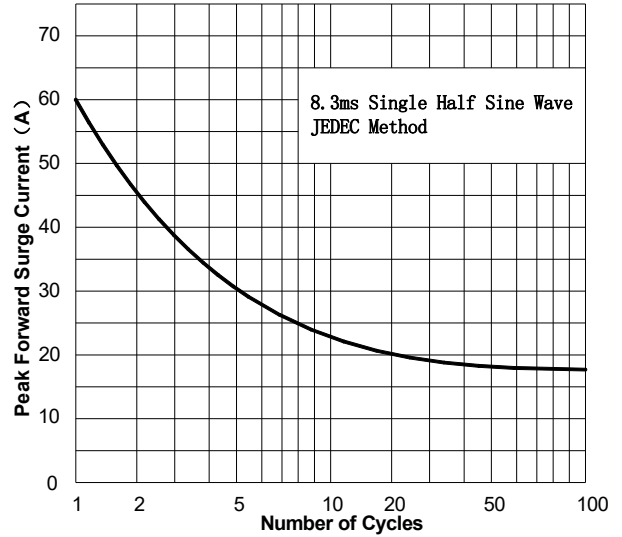
Notes1: Pulse test:300uS pulse width,1% duty cycle  
2: Pulse test:pulse width 40mS

**Rating and characteristic curves**

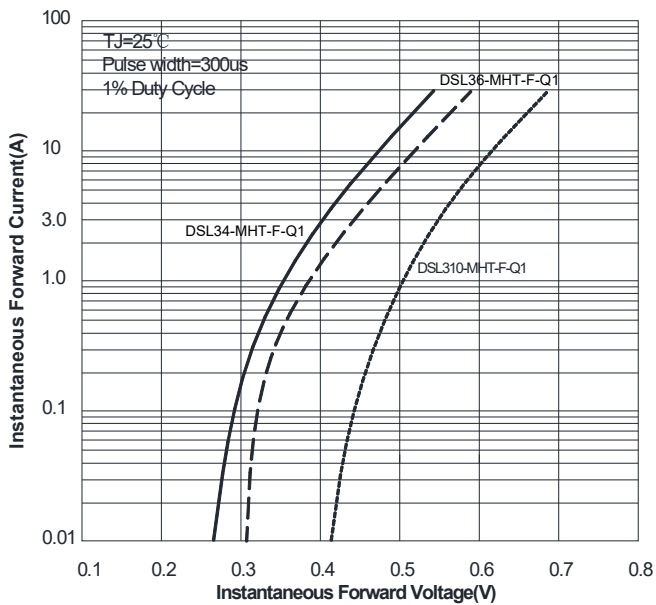
**FIG1: Io-TL Curve**



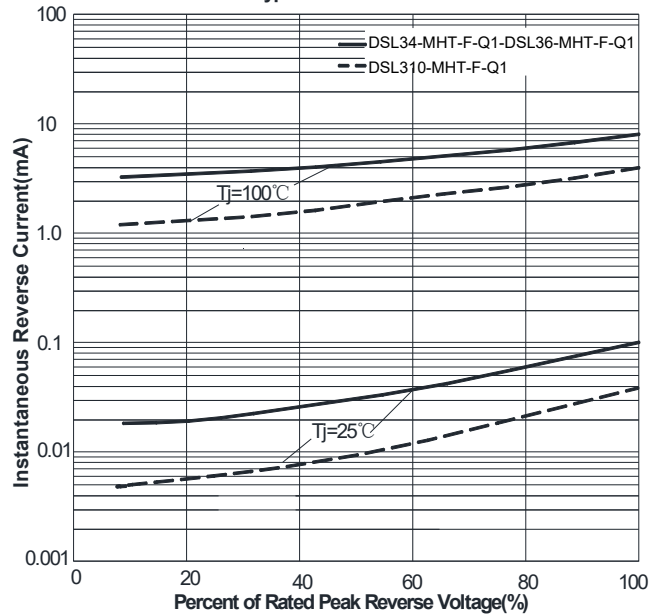
**FIG2: Surge Forward Current Capability**





**FIG3: Forward Voltage**



**FIG4: Typical Reverse Characteristics**



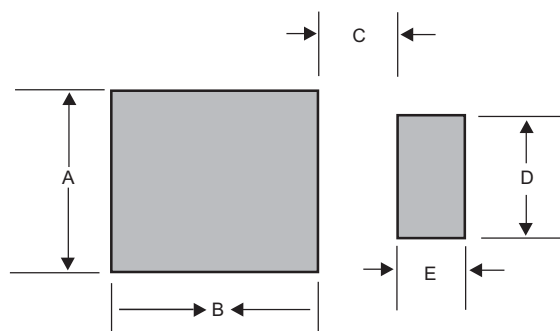
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
DSL34-MHT-F-Q1	34L
DSL36-MHT-F-Q1	36L
DSL310-MHT-F-Q1	310L

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D	E
SOD-123HT-F	0.100(2.54)	0.105(2.67)	0.025(0.64)	0.048(1.23)	0.030(0.76)