

## **SSCS40101L6**

### Schottky Barrier Diode

- **Features**

- ❖ Small Surface Mounting Type
- ❖ Ideal for Automated Placement
- ❖ Ultrafast Reverse Recovery Time
- ❖ Low Power Losses, High Efficiency
- ❖ Low Forward Voltage Drop
- ❖ High Surge Capability
- ❖ RoHS Compliant
- ❖ UL Flammability Classification Rating 94V-0
- ❖ Moisture Sensitivity: Level 3 per J-STD-020

- **PIN configuration**



[DFN1608-2L](#)



[Circuit Diagram](#)

- **Applications**

- ❖ Low Voltage
- ❖ High-Frequency Inverters
- ❖ Free Wheeling
- ❖ Polarity Protection
- ❖ Switching circuit

Pin1 - S3 + Pin2

[Marking\(Top View\)](#)

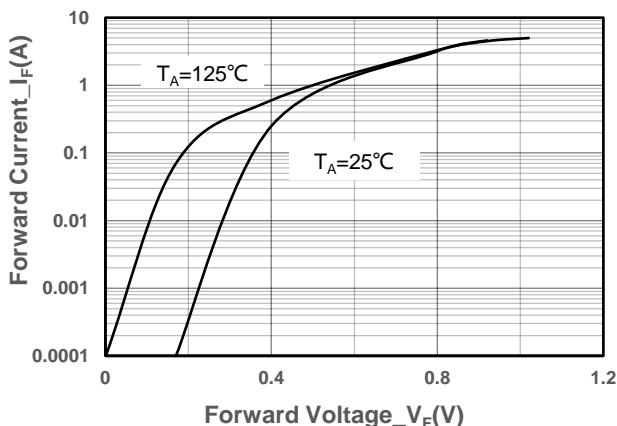
- **Absolute maximum rating @ $T_A=25^\circ C$**

Parameter	Symbol	Value	Unit
Reverse Voltage(Repetitive Peak)	$V_{RRM}$	40	V
Reverse Voltage(RMS)	$V_{R(RMS)}$	32	V
DC Blocking Voltage	$V_R$	40	V
Average Rectified Forward Current	$I_o$	1.5	A
Non-Repetitive Peak Forward Surge Current@ $t=8.3ms$	$I_{FSM}$	5	A
Power Dissipation	$P_D$	410	mW
Thermal Resistance Junction to Ambient(Typ)	$R_{\theta JA}$	305	°C/W
Operating Temperature	$T_J$	55 ~ +150	°C
Storage Temperature	$T_{STG}$	-55 ~ +150	°C

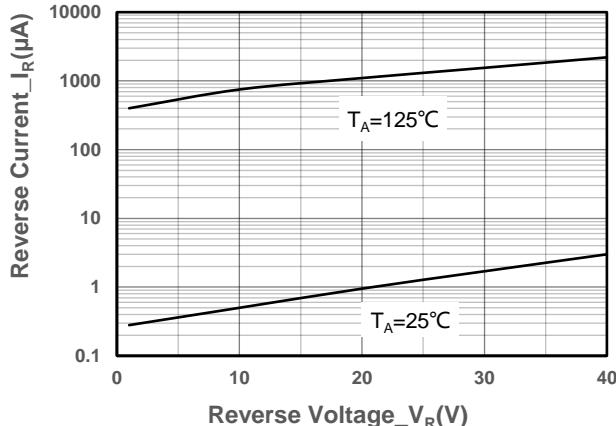
- **Electrical Characteristics @ $T_A=25^\circ\text{C}$**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	$V_{BR}$	$I_R = 0.1\text{mA}$	40			V
Reverse Current	$I_R$	$V_R = 40\text{V}$			20	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 10\text{V}, f = 1\text{MHz}$			25	pF
Forward Voltage	$V_F$	$I_F = 100\text{mA}$	0.345		0.39	V
		$I_F = 700\text{mA}$	0.48		0.55	
		$I_F = 1\text{A}$	0.54		0.60	

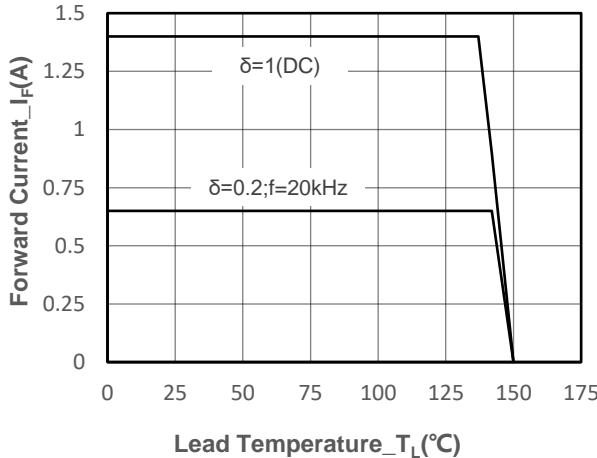
- **Typical Performance Characteristics**



**Forward Voltage vs. Forward Current**



**Reverse Voltage vs. Reverse Current**



**Power Derating vs. Lead Temperature**

- Package Information**

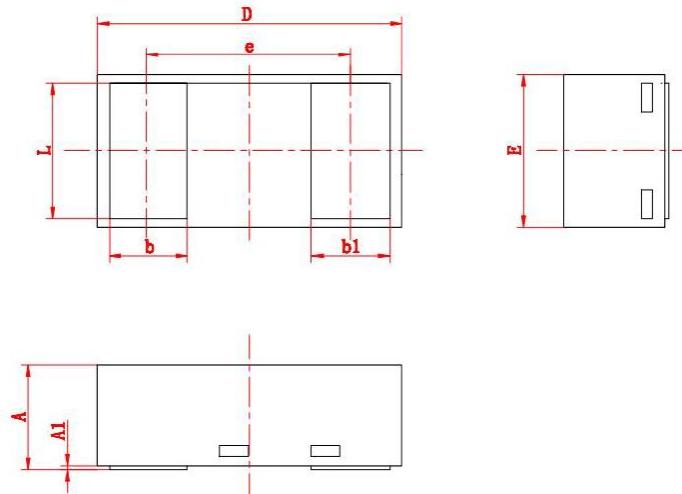
**Ordering Information**

Device	Package	Marking	Qty per Reel	Reel Size
SSCS40101L6	DFN1608-2L	S3	3000	7 Inch

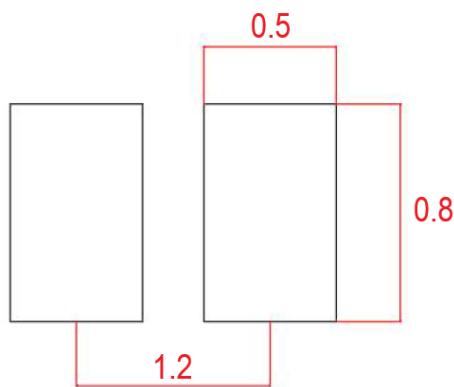
**Mechanical Data**

Case: DFN1608-2L

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min	Nor	Max
A	0.50	-	0.60
A1	0	-	0.05
D	1.50	-	1.70
E	0.75	-	0.85
e	(1.05)		
b	0.36	-	0.46
b1	0.36	-	0.46
L	0.66	-	0.76

**Recommended Pad outline (Unit:mm)**


**DISCLAIMER**

AFSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. AFSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G., OUTSIDE SPECIFIED POWER SUPPLY RANGE ) AND THEREFORE OUTSIDE THE WARRANTED RANGE.