Features

- Reduced ultra-low forward voltage drop (VF). Better efficiency and cooler operation
- Reduced high temperature reverse leakage. Increased reliability against thermal runaway failure in high temperature operation
- Totally Lead-Free & Fully RoHS Compliant
- Halogen and Antimony Free. “Green” Device

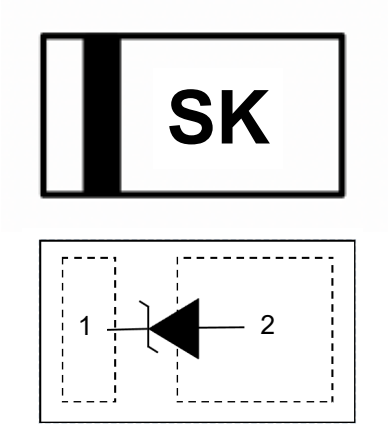
Mechanical Characteristics

- Case: U-DFN1608-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish - NiPdAu over Copper Leadframe. Solderable per MIL-STD-202, Method 208
- Weight: 0.002 grams (Approximate)

Marking Information

- DC-DC Converters
- AC-DC Adaptors

Marking Information



Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
DC Blocking Voltage	V_{RM}	40	V
Average Rectified Output Current	I_O	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	8	A
Repetitive Peak Forward Current (tp = 1ms, duty cycle = 25%)	I_{FRM}	5	A
Typical Thermal Resistance	$R_{\theta JA}$	130	˚C/W
Junction Temperature	T_J	-65 to +150	˚C
Storage Temperature	T_{STG}	-65 to +150	˚C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	TYP	Max	Unit	Test Condition
Leakage Current	I_R		0.0006	0.004	mA	V_R = 10V, T_J = +25°C
			0.002	0.02		V_R = 40V, T_J = +25°C
			0.80			V_R = 40V, T_J = +125°C
Forward Voltage Drop	V_F		0.49	0.56	V	I_F = 0.5A, T_J = +25°C
			0.42			I_F = 0.5A, T_J = +125°C
			0.59	0.66		I_F = 1A, T_J = +25°C
			0.55			I_F = 1A, T_J = +125°C
Total Capacitance	C_T		25		pF	V_R=5V,f =1MHz
Reverse Recovery Time	trr		8.4		ns	I_F = 10mA, Irrm = 0.1Ir,Ta = +25°C

Notes:

1. Test with FR-4 PC board 1-inch sq. copper pad, 2oz.
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

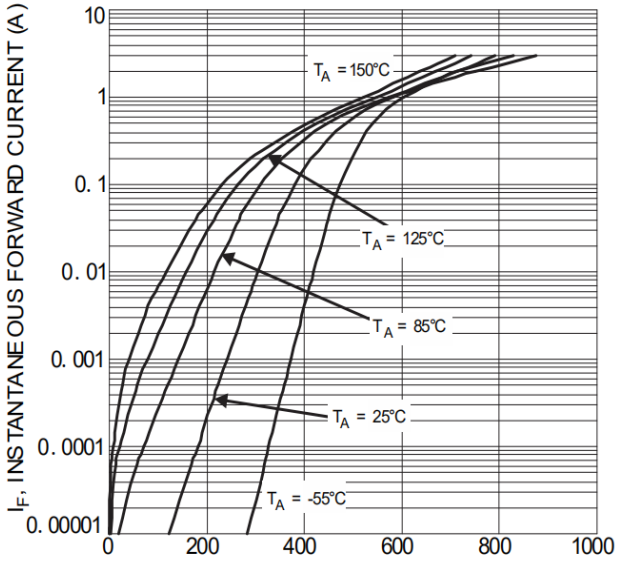


Figure 1 Typical Forward Characteristics

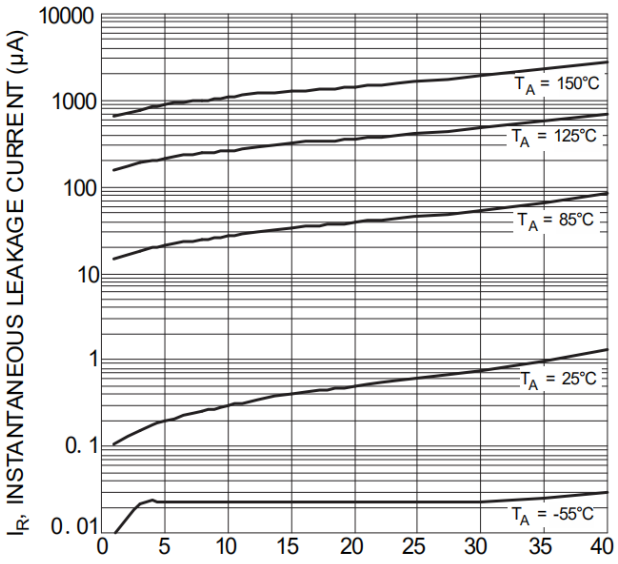


Figure 2 Typical Reverse Characteristics

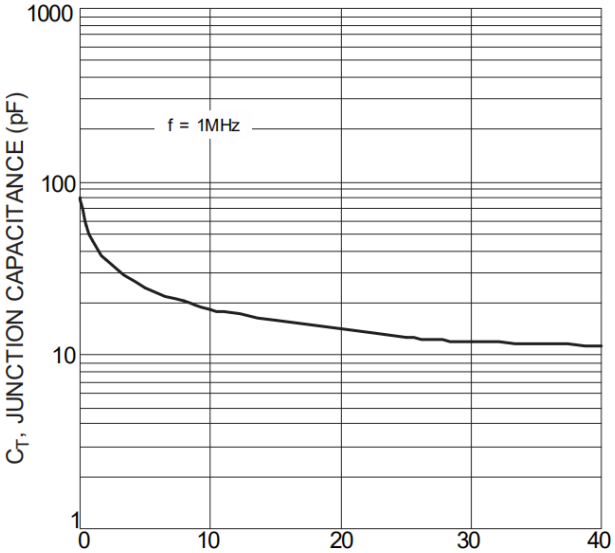


Figure 3 Typical Junction Capacitance

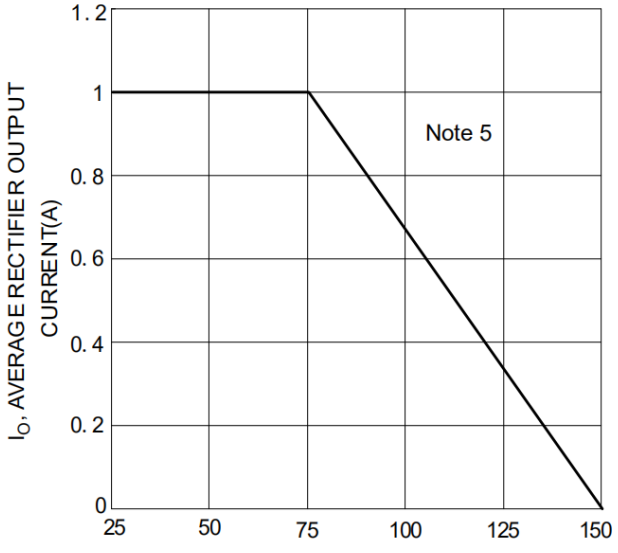
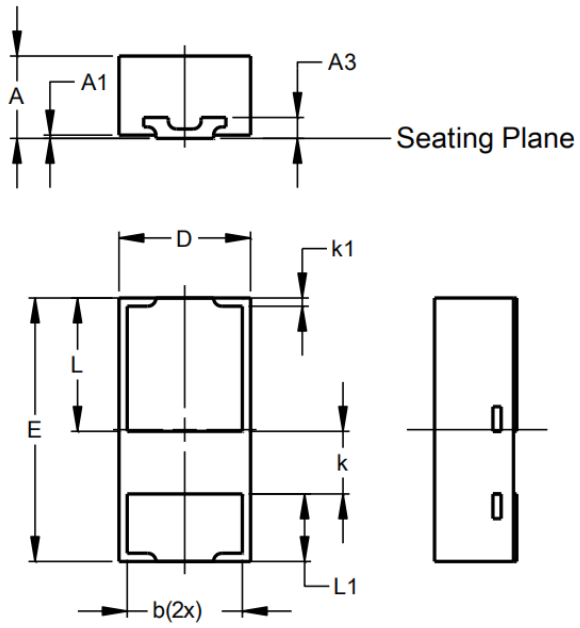


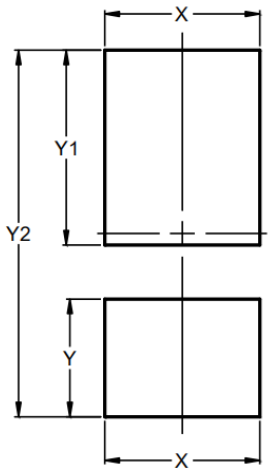
Figure 4 DC Forward Current Derating Curve

DFN1006-2 Package Outline Drawing



U-DFN1608-2			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0.00	0.05	0.02
A3	-	-	0.127
b	0.65	0.75	0.70
D	0.75	0.85	0.80
E	1.55	1.65	1.60
k	0.38 BSC		
k1	0.05 BSC		
L	0.76	0.86	0.81
L1	0.36	0.46	0.41
All Dimensions in mm			

Suggested Land Pattern



Dimensions	Value (in mm)
X	0.800
Y	0.610
Y1	1.010
Y2	1.900

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