

800V High Voltage & High T_J 175°C Ultra LVF Bridge

Voltage

800 V

Current

6A

Features

- Oxide planar chip junction
- Low forward voltage drop ($V_F@0.72V$)
- Low leakage current ($I_R@20\mu A$)
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard



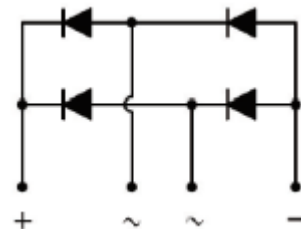
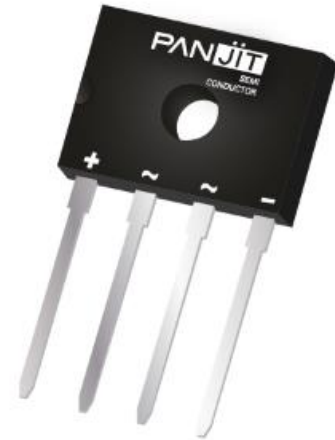
Mechanical Data

- Case : DXK Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.29 grams

Application

- USB PD & NB Adapter
- Monitor power adapter
- Consumer Power
- Quick Charger

DXK



Key Parameters	
Parameter	Value
V_{RRM}	800V
$I_F(AV)$	6A
I_{FSM}	135A
$V_F@175^\circ C$	0.72V
I_R	1uA
T_J max.	175°C
Package	DXK

Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	800	V
Maximum RMS Voltage		V_{RMS}	560	V
Maximum DC Blocking Voltage		V_{DC}	800	V
Maximum Average Forward Current	With heatsink	$I_{F(AV)}$	6	A
	Without heatsink		2.5	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	135	A
	@ $T_A = 125^\circ\text{C}$		108	
Peak Forward Surge Current : 1.0 ms Single Half Square -Wave Superimposed On Rated Load	@ $T_A = 25^\circ\text{C}$	I_{FSM}	220	A
	@ $T_A = 125^\circ\text{C}$		176	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	75.6	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$		C_J	70	pF
Typical Thermal Resistance (Note 1) (with heatsink)		$R_{\theta JA}$	11	$^\circ\text{C/W}$
		$R_{\theta JL}$	6	
		$R_{\theta JC}$	1.5	
Operating junction and storage temperature range		T_J, T_{STG}	-55~175	$^\circ\text{C}$
Mounting torque @ Recommend torque:5Kg.cm		Tor	8	Kg.cm

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_F	$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.88	0.92	V
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.75	-	
Reverse Current	I_R	$V_R = 800\text{ V}, T_J = 25^\circ\text{C}$	-	0.2	1	μA
		$V_R = 800\text{ V}, T_J = 125^\circ\text{C}$	-	20	-	

NOTES :

1. Device mounted on 10 cm * 9.4 cm * 2.6 cm Fin type heat sink.

TYPICAL CHARACTERISTIC CURVES

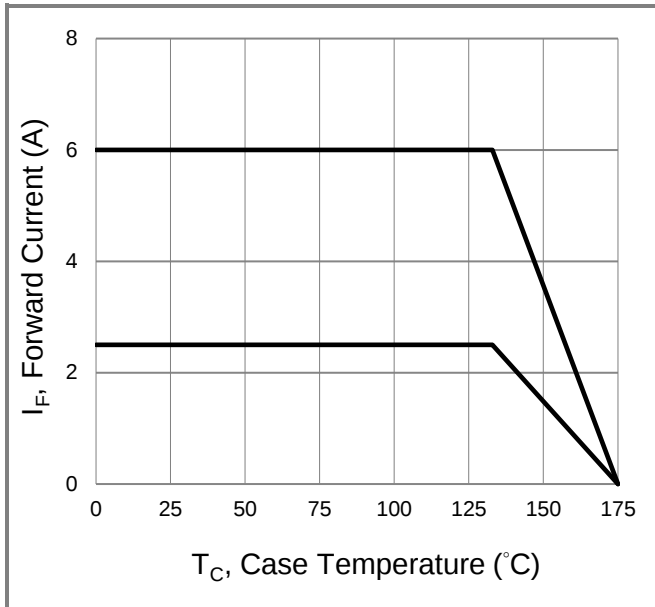


Fig.1 Forward Current Derating Curve

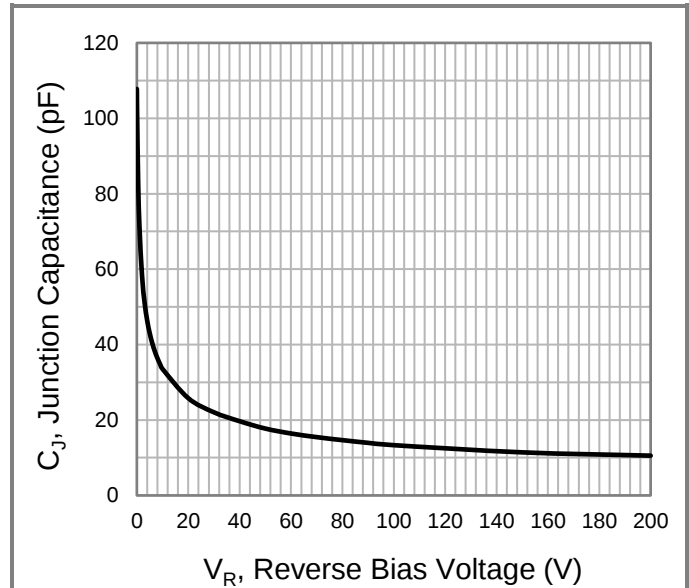


Fig.2 Typical Junction Capacitance

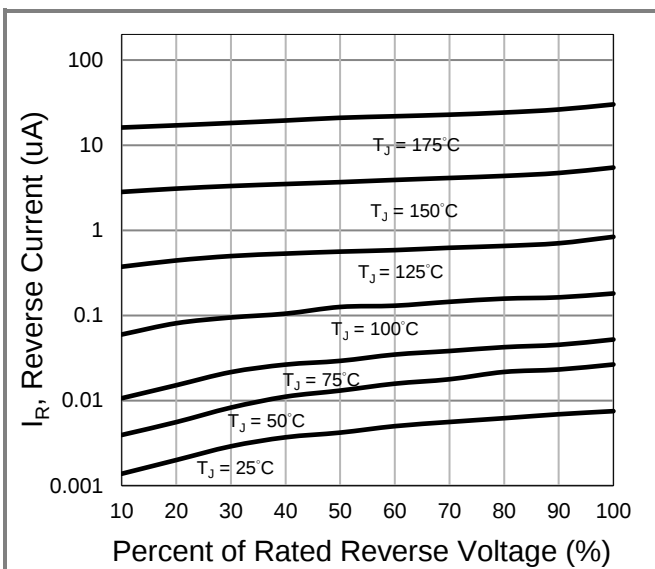


Fig.3 Typical Reverse Characteristics

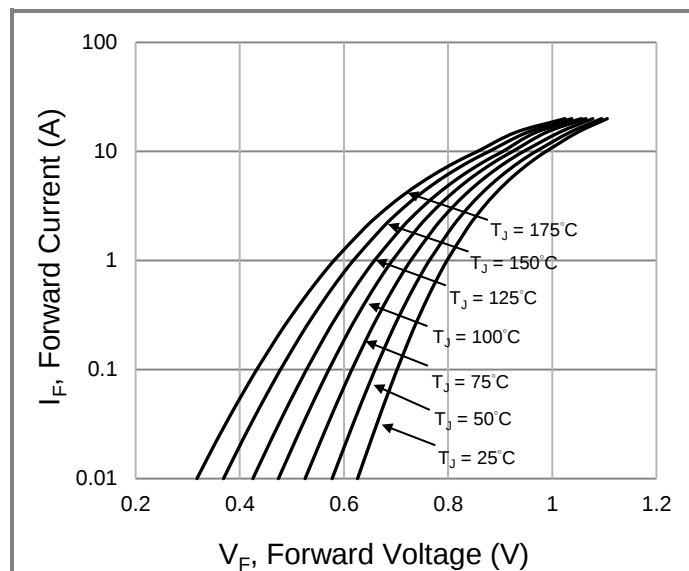


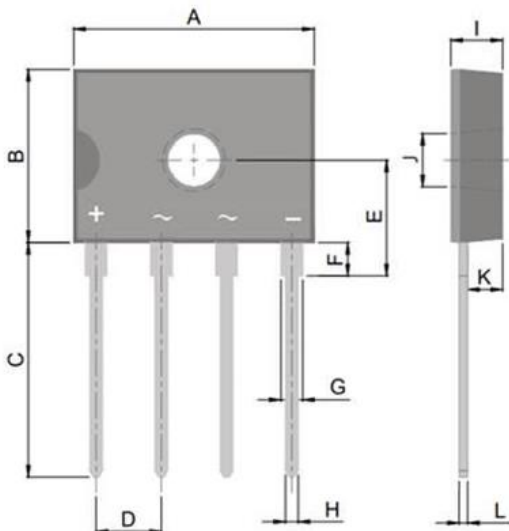
Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
DXK608HULV	DXK	35pcs / Tube	DXK608HULV

Packaging Information

DXK Dimension			Unit: inch(mm)	
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DXK Dimension.Unit:Inch (mm)				
Dim	Unit (Inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.559	0.579	14.20	14.70
B	0.398	0.421	10.10	10.70
C	0.543	0.567	13.80	14.40
D	0.146	0.154	3.71	3.91
E	0.262	0.285	6.65	7.25
F	0.070	0.090	1.80	2.20
G	0.043	0.059	1.10	1.50
H	0.026	0.034	0.66	0.86
I	0.114	0.13	2.90	3.30
J	Ø0.122	Ø0.130	Ø3.10	Ø3.30
K	0.071	0.095	1.80	2.40
L	0.014	0.024	0.35	0.60

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