

**Silicon Carbide (SiC)
 Schottky Diode – EliteSiC,
 10 A, 1200 V, D1, DPAK**

FFSD10120A

Description

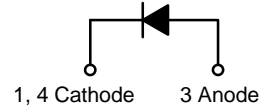
Silicon Carbide (SiC) Schottky Diodes use a completely new technology that provides superior switching performance and higher reliability compared to Silicon. No reverse recovery current, temperature independent switching characteristics, and excellent thermal performance sets Silicon Carbide as the next generation of power semiconductor. System benefits include highest efficiency, faster operating frequency, increased power density, reduced EMI, and reduced system size and cost.

Features

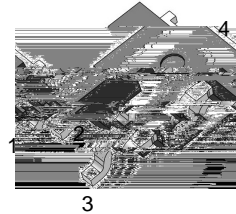
- Max Junction Temperature 175°C
- Avalanche Rated 100 mJ
- High Surge Current Capacity
- Positive Temperature Coefficient
- Ease of Paralleling
- No Reverse Recovery/No Forward Recovery
- This Device is Pb Free, Halogen Free/BFR Free and RoHS Compliant

Applications

- General Purpose
- SMPS, Solar Inverter, UPS
- Power Switching Circuits

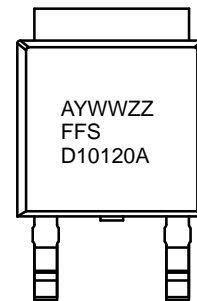


Schottky Diode



DPAK
 CASE 369AS

MARKING DIAGRAM



- | | |
|------------|---------------------------|
| A | = Assembly Plant Code |
| YWW | = Date Code (Year & Week) |
| ZZ | = Lot Code |
| FFSD10120A | = Specific Device Code |

ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

FFSD10120A

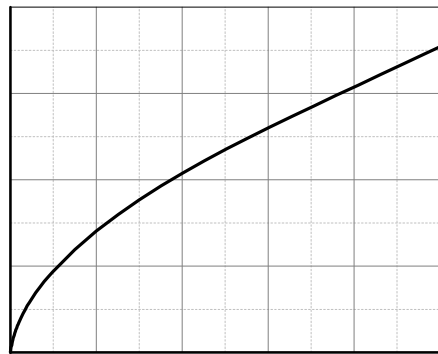
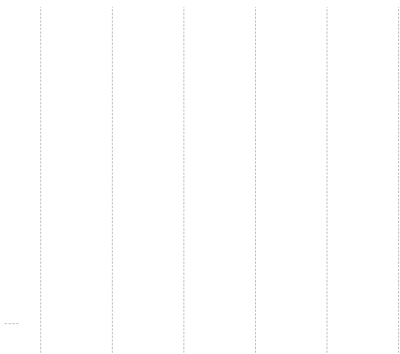
ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise noted)

Symbol	Parameter	Value	Unit	
V _{RRM}	Peak Repetitive Reverse Voltage	1200	V	
E _{AS}	Single Pulse Avalanche Energy (Note 1)	100	mJ	
I _F	Continuous Rectified Forward Current @ T _C < 164°C	10	A	
	Continuous Rectified Forward Current @ T _C < 135°C	22	A	
I _{F,Max}	Non-Repetitive Peak Forward Surge Current	T _C = 25°C, 10 μs	850	A
		T _C = 150°C, 10 μs	800	A
I _{F,SM}	Non-Repetitive Forward Surge Current	Half-Sine Pulse, t _p = 8.3 ms	90	A
I _{F,RM}	Repetitive Forward Surge Current	Half-Sine Pulse, t _p = 8.3 ms	35	A
P _{TOT}	Power Dissipation	T _C = 25°C	283	W
		T _C = 150°C	47	W
T _J , T _{STG}	Operating and Storage Temperature Range	-55 to +175	°C	

Stresses

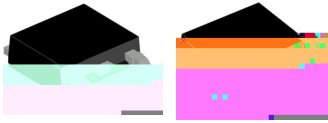
FFSD10120A

TYPICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)



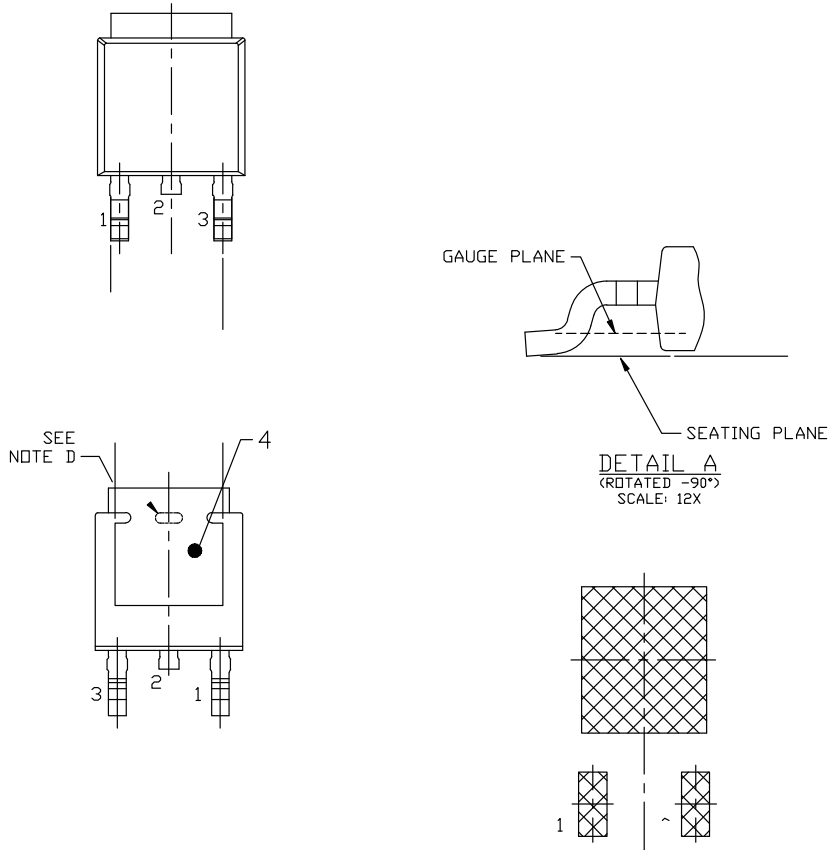
FFSD10120A

TYPICAL CHARACTERISTICS



DPAK3 6.10x6.54x2.29, 4.57P
CASE 369AS
ISSUE B

DATE 20 DEC 2023



LAND PATTERN RECOMMENDATION

GENERIC MARKING DIAGRAM*



*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

XXXX = Specific Device Code
 A = Assembly Location
 Y = Year
 WW = Work Week
 ZZ = Assembly Lot Code

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