FFSH20120ADN-F085

Symbol	Parameter	Value	Unit	
V _{RRM}	Peak Repetitive Reverse Voltage		1200	V
E _{AS}	Single Pulse Avalanche Energy (Note 1)		100	mJ
١ _F	Continuous Rectified Forward Current @ T _C < 155°C		10* / 20**	А
	Continuous Rectified Forward Current @ T _C < 135°C		15* / 30**	
I _{F, Max}	Non-Repetitive Peak Forward Surge Current	T _C = 25°C, 10 μs	630	А
		T _C = 150°C, 10 μs	560	А
I _{F,SM}	Non-Repetitive Forward Surge Current	Half-Sine Pulse, t _p = 8.3 ms	96	А
I _{F,RM}	Repetitive Forward Surge Current	Half-Sine Pulse, t _p = 8.3 ms	46	А
Ptot	Power Dissipation	$T_{C} = 25^{\circ}C$	150	W
		T _C = 150°C	25	W
T _J , T _{STG}	Operating and Storage Temperature Range TO247 Mounting Torque, M3 Screw		55 to +175	°C
			60	Ncm

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^{\circ}C$ unless otherwise noted)

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

should not be assumed, damage may occur and reliability may be affected. 1. E_{AS} of 100 mJ is based on starting $T_J = 25^{\circ}C$, L = 0.5 mH, $I_{AS} = 20$ A, V = 50 V. *Per leg, ** Per Device

THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
$R_{ extsf{ heta}JC}$	Thermal Resistance, Junction to Case, Max	1.0* / 0.44**	°C/W

*Per leg, ** Per Device

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Symbol	Parameter	Test Condition	Min	Тур	Max	Unit
V _F	Forward Voltage	$I_{\rm F} = 10$ A, $T_{\rm C} = 25^{\circ}{\rm C}$		1.45	1.75	V
		I _F = 10 A, T _C = 125°C		1.7	2.0	
		I _F = 10 A, T _C = 175°C		2.0	2.4	
I _R	Reverse Current	$V_{R} = 1200 \text{ V}, \text{ T}_{C} = 25^{\circ}\text{C}$			200	μΑ
		$V_{R} = 1200 \text{ V}, \text{ T}_{C} = 125^{\circ}\text{C}$			300	
		$V_{R} = 1200 \text{ V}, \text{ T}_{C} = 175^{\circ}\text{C}$			400	
Q _C	Total Capacitive Charge	V = 800 V		62		nC
С	Total Capacitance	V _R = 1 V, f = 100 kHz		612		pF
		V _R = 400 V, f = 100 kHz		58		
		V _R = 800 V, f = 100 kHz		47		1

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

ORDERING INFORMATION

Part Number	Top Marking	Package	Shipping
FFSH20120ADN F085	FFSH20120ADN	TO 247 3LD (Pb-Free / Halogen Free)	30 Units / Tube

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$\label{eq:type} \begin{array}{l} \textbf{TYPICAL CHARACTERISTICS} \\ (T_J = 25^\circ C \text{ UNLESS OTHERWISE NOTED; PER LEG)} \end{array}$

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