

- Free-wheeling diode for motor application
- Power switching circuits

ULTRA FAST RECOVERY POWER RECTIFIER

Absolute Maximum Ratings (per diode) T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V _{RRM}	Peak Repetitive Reverse Voltage	600	V	
I _{F(AV)}	Average Rectified Forward Current $@T_{C} = 100^{\circ}C$	40	A	
I _{FSM}	Non-repetitive Peak Surge Current 60Hz Single Half-Sine Wave	240	A	
T _{J,} T _{STG}	Operating Junction and StorageTemperature	- 65 to +150	°C	

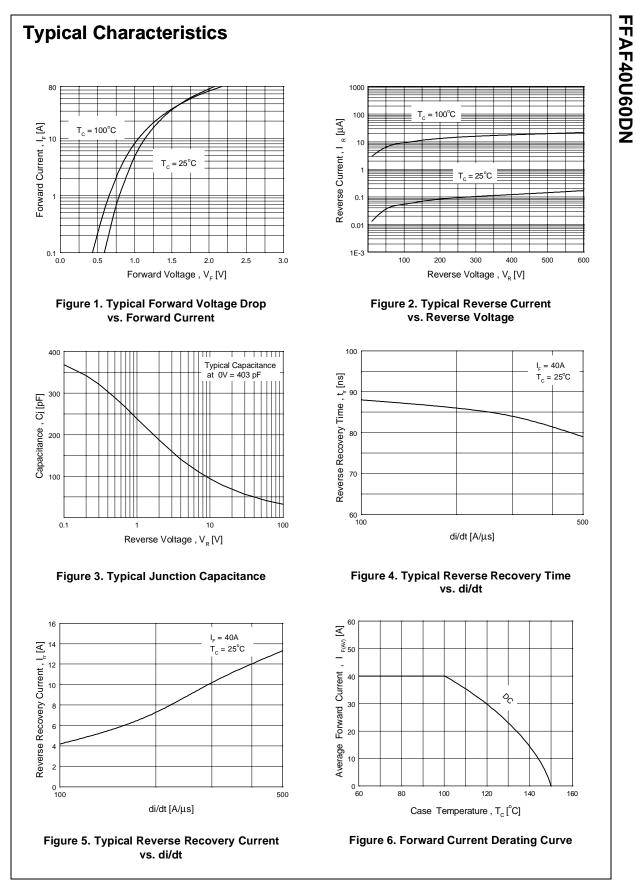
Thermal Characteristics

Symbol	Parameter	Value	Units	
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case	0.7	°C/W	

Electrical Characteristics (per diode) T_C=25 °C unless otherwise noted

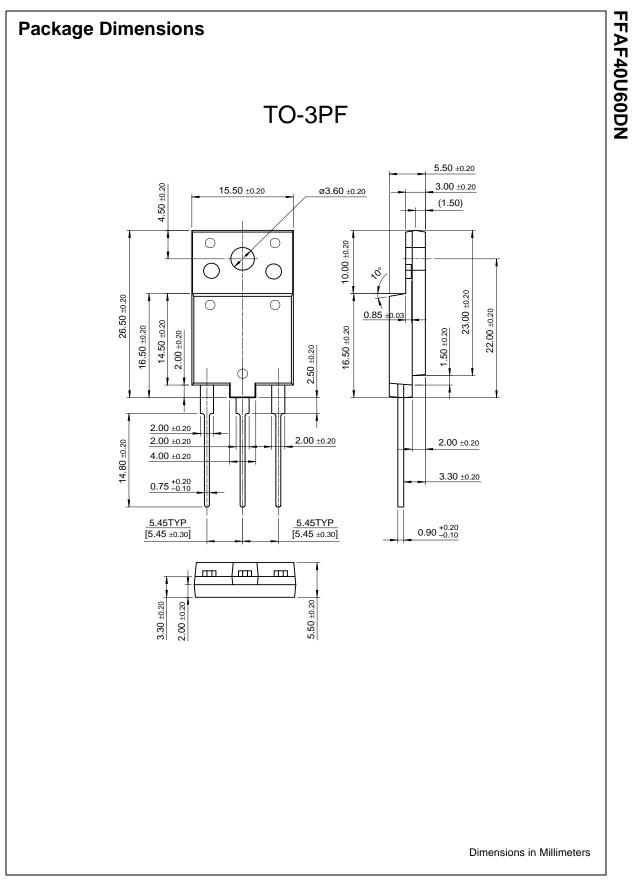
Symbol	Parameter		Min.	Тур.	Max.	Units
V _{FM} *	Maximum Instantaneous Forward Voltage					V
	I _F = 40A	T _C = 25 °C	-	-	2.1	
	I _F = 40A	T _C = 25 °C T _C = 100 °C	-	-	1.9	
RM *	Maximum Instantaneous Reverse Current					μΑ
	@ rated V _R	T _C = 25 °C	-	-	20	
		T _C = 25 °C T _C = 100 °C	-	-	200	
rr	Maximum Reverse Recovery Time		-	-	110	ns
rr	Maximum Reverse Recovery Current		-	-	10	Α
Q ^{rr}	Maximum Reverse Recovery Charge (I _F =40A, di/dt = 200A/μs)		-	-	550	nC
W _{AVL}	Avalanche Energy		1.0	-	-	mJ

FFAF40U60DN



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	•	Rev. F1