

600V-1200V High Voltage FRED

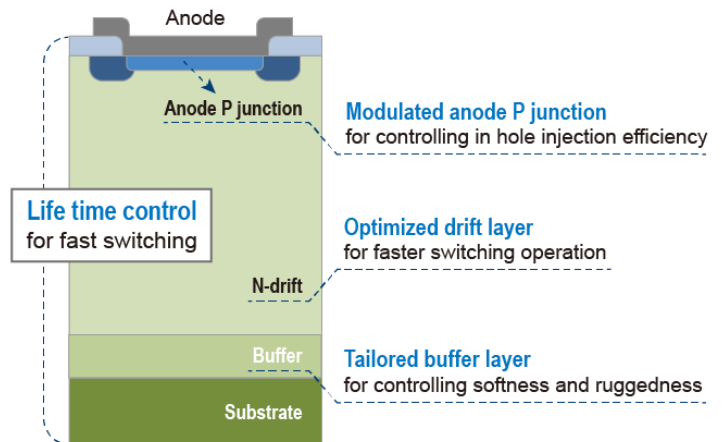
Outstanding Trade-Off Performance FRED



Choosing the proper power diode for power applications is crucial for achieving high efficiency. PANJIT International Inc. has released power FREDs with the voltage range of 600V-1200V. With the outstanding trade-off performance, power system efficiency can be maximized and appropriate to be used as rectification or freewheeling in various power applications.

► Features

- Best trade-off on V_f & T_{rr}
- Low leakage current
- Soft recovery characteristic for better EMI
- Best efficiency achievable
- Best combination with power switches



► Target Application

Consumer



- Home Appliance
- Digital TV

Power System



- PSU for Network
- Server Power
- Data Center
- PC Power

Green Energy



- PV Inverter
- ESS / BMS

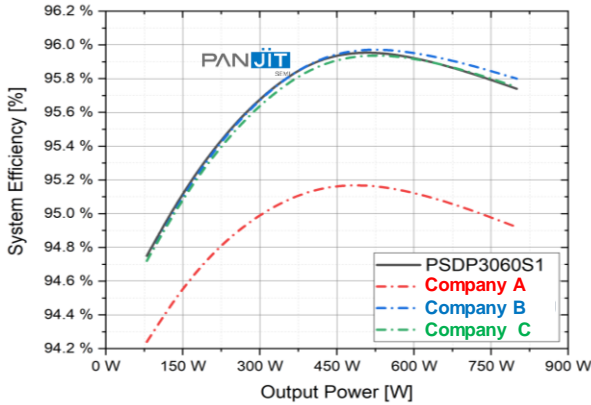
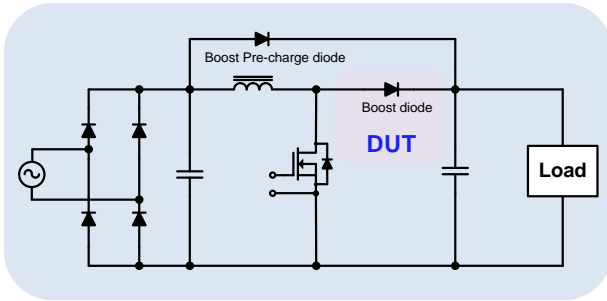
Industrial



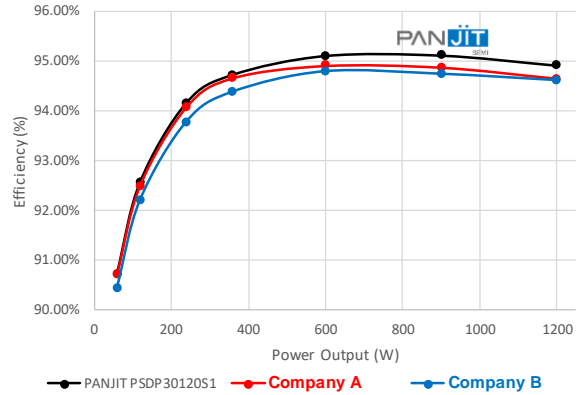
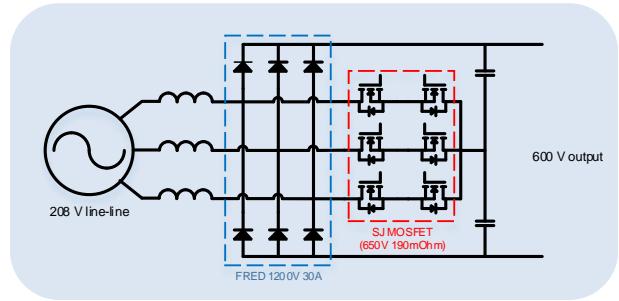
- UPS
- Welder
- Industrial Motor

► Performance

- 600V FRED in 800W CCM Boost PFC
($V_{in} = 110V_{ac}/60Hz$, $V_{out} = 400V$, $F_{sw} = 65kHz$)



- 1200V FRED in 1.2kW Vienna PFC
($V_{in} = 208V_{AC}$, $V_{out} = 600V$, $F_{sw} = 50kHz$)



► Product List

Optima FRED (Low V_f) : Minimize Conduction Loss

Speedy FRED (Low T_{rr}) : Minimize Switching Loss

* NC 1 pin

Series	BV (V)	I_f (A)	V_f Typ. (V)	T_{rr} Typ. (ns)	TO-252AA	TO-263	TO-220AC	ITO-220AC	TO-247-2LD	TO-247-3LD	
600V FRED Optima (Low V_f)	600	8	1.3	60	PSDD0860L1 PSDC0860L1*	PSDB0860L1	PSDP0860L1	PSDF0860L1			
		15	1.3	70		PSDB1560L1	PSDP1560L1	PSDF1560L1			
		30	1.3	75		PSDB3060L1	PSDP3060L1	PSDF3060L1	PSDH3060S1		
			1.3	70						PSDH3060CCL1	
		60	1.25	135						PSDH6060L1	
			1.3	75							PSDH6060CCL1
600V FRED Speedy (Low T_{rr})	600	8	1.8	35	PSDD0860S1 PSDC0860S1*	PSDB0860S1	PSDP0860S1	PSDF0860S1			
		15	1.8	42		PSDB1560S1	PSDP1560S1	PSDF1560S1			
		30	1.8	45		PSDB3060S1	PSDP3060S1	PSDF3060S1	PSDH3060S1		
			1.8	42						PSDH3060CCS1	
		60	1.65	55					PSDH6060S1		
		1.8	45						PSDH6060CCS1		
1000V FRED Speedy (Low T_{rr})	1000	30	2.65	95					PSDH30100S1		
1200V FRED Optima (Low V_f)	1200	8	2.1	70			PSDP08120L1				
		15	2.1	105			PSDP15120L1				
		30	2.1	160			PSDP30120L1		PSDH30120L1		
		60	2.0	220					PSDH60120L1		
1200V FRED Speedy (Low T_{rr})	1200	8	3.0	45			PSDP08120S1				
		15	3.0	70			PSDP15120S1				
		30	3.0	135			PSDP30120S1		PSDH30120S1		
		60	2.7	170					PSDH60120S1		