

# DC Power Board Selection Guide

Models <sup>(1)</sup>	Nominal Regulated Output Voltage & Max. Current				Input Voltage Range <sup>(2)</sup>	Dimensions L x W x t (mm)	Remarks
	Drain		Gate				
	Voltage	Current	Voltage	Current			
<b>TF Series Output Voltage Regulators with DC/DC Converter and Negative/Positive Output Sequence Controller <sup>(3)</sup></b>							
<b>TFP Series</b>							
TFP03B-F	11 V	3 A	-5 V	20 mA	13-15 V	68 x 13 x 10.8	
TFP03-F	10 V	3 A	-5 V	20 mA	12-15 V	68 x 13 x 10.8	
TFP03-9-F	9 V	3 A	-5 V	20 mA	11-14 V	68 x 13 x 10.8	
TFP03-8-F	8 V	2 A	-5 V	30 mA	11-14 V	68 x 13 x 10.8	
TFP03-7N3-F	7 V	2 A	-3 V	30 mA	9-11 V	68 x 13 x 10.8	
TFP508C-F	On Board Selection <sup>(4)</sup> 8-12 V	12A	-5V	80mA	11-15 V <sup>(4)</sup>	72 x 16 x 11.2	- Mechanically adjustable drain voltage - Default drain voltage set at 10 V before shipping
<b>TFV Series</b>							
TFV03-A-F	10 V	3 A	-5 V	30 mA	12-15 V	68 x 13 x 10.8	
TFV03-9-F	9 V	3 A	-5 V	30 mA	11-14 V	68 x 13 x 10.8	
TFV03-8-F	8 V	2 A	-5 V	30 mA	11-14 V	68 x 13 x 10.8	
TFV03-6-F	6 V	2 A	-5 V	30 mA	11-14 V	68 x 13 x 10.8	
TFV03-7N3-F	7 V	2 A	-3 V	30 mA	9-11 V	68 x 13 x 10.8	- Tunable gate voltage added to TFP03 series, providing 2 negative output terminals: Fixed at -5 V and adjustable from -5 V to 0 - Maximum current for the tunable gate voltage is 1 mA
<b>TFS Series</b>							
TFS50AC-F	On Board Selection <sup>(4)</sup> 10-12 V	12A	-5V	80mA	12-15 V <sup>(4)</sup>	72 x 16 x 11.2	- Added TTL switch to TFP50 design rise/fall (on/off) speed: 40 μ sec/ 10 μ sec - Default drain voltage set at 10 V before shipping
<b>TM Series Low Loss Output Voltage Regulators with DC/DC Converter and Negative/Positive Output Sequence Controller</b>							
<b>TMF06 Series (obsolete)</b>	All TMF06 models have been replaced by the TMF53 series below, which have the same basic electrical and dimensional specifications						
<b>TMF53 Series (new)</b>							
TMF53HC-F	12 V	20 A	-5 V	80 mA	12.5-13.5 V	72 x 16 x 11.2	
TMF53HB-F	11 V	20 A	-5 V	80 mA	11.5-13.5 V	72 x 16 x 11.2	
TMF53HA-F	10 V	20 A	-5 V	80 mA	10.5-12.5 V	72 x 16 x 11.2	
TMF53H9-F	9 V	20 A	-5 V	80 mA	10.5-12 V	72 x 16 x 11.2	Uses MOS FET regulator for positive output voltage
TMF53LB-F	11 V	20 A	-5 V	30 mA	11.5-13.5 V	72 x 16 x 11.2	
TMF53LA-F	10 V	20 A	-5 V	30 mA	10.5-12.5 V	72 x 16 x 11.2	
TMF53L9-F	9 V	20 A	-5 V	30 mA	10.5-12 V	72 x 16 x 11.2	
<b>TMS20 Series (obsolete)</b>	All TMS20 models have been replaced by the TMS55 series below, which have the same basic electrical and dimensional specifications						
<b>TMS55 Series (new)</b>							
TMS55HB-F	11 V	20 A	-5 V	80 mA	11.5-13.5 V	72 x 16 x 11.2	- Added TTL switch to TMF53 design raise/fall (on/off) speed: 1000 μ sec/ 500 μ sec
TMS55HA-F	10 V	20 A	-5 V	80 mA	10.5-12.5 V	72 x 16 x 11.2	- Uses MOS FET regulator for positive output voltage
<b>SFP Series Negative Voltage Regulators with DC/DC Converter and Negative/Positive Output Sequence Controller</b>							
<b>SFP Series</b>							
SFP02	Pass through (positive output voltage same as input)	0.7 A	-3 V	15 mA	6.5-11 V	20 x 10 x 14.0	
SFP5A51		5 A	-5 V	15 mA	8-11 V	40 x 13 x 14.0	Without a regulator for positive output voltage, board size is reduced, with low power loss feature
SFP5A33		5 A	-3 V	30 mA	8-11 V	40 x 13 x 14.0	
<b>DC/DC Converter and Regulator for Negative Voltage from Positive Input Voltage</b>							
<b>T3M Series</b>							
T3M4-F	-	-	-3 V	40 mA	10-11 V	39 x 13 x 7.8	No sequence controller
<b>GaN FET Voltage Regulators with DC/DC Converter and Negative/Positive Output Sequence Controller <sup>(5)</sup></b>							
<b>TGS Series</b>							
TGS1025-xx <sup>(5)</sup> -F	24-50 V <sup>(5)</sup>	15A	-5 V	200 mA	27-53 V <sup>(6)</sup>	77 x 19 x 12.2	Has TTL switch for controlling positive output <Typical> 160μ sec / 30μ sec @ 28V 300μ sec / 50μ sec @ 48V

**Notes:**

- (1) "-F" suffix added to part numbers indicates RoHS compliance.
- (2) Input voltage range depends on required positive output and regulator characteristics.
- (3) Output voltages created from single positive input voltage. The series regulator requires 2 volts minimum drop.
- (4) Input voltage must exceed selected positive output voltage by at least 2V. For output less than 10V contact Tecdia for maximum recommended input voltage.
- (5) Required output voltage must be specified at order placement.
- (6) Voltage input must be at least 3 V greater than desired output.

This specification may be modified without notice. (2014.AUG)