



## Global Industrial Products

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### “Advanced OEM Component Technologies”



#### GLOBAL2412-5

DESCRIPTION: THE SM2412-5 IS A GENERAL PURPOSE DC-DC CONVERTER, ALLOWING OPERATING VOLTAGES AS LOW AS 18VDC AND AS HIGH AS 50VDC INPUT AT A REGULATED 13.8VDC OUTPUT.

PURPOSE: OPERATING STANDARD 12 VOLT DC EQUIPMENT (LIGHTS, RADIOS, CELL PHONES, AND TWO WAY RADIO) FROM A NON STANDARD ELECTRICAL SYSTEM.

#### FEATURES:

SWITCHED VOLTAGE REGULATED  
HIGH EFFICIENCY  
5A CONTINUOUS OUTPUT CURRENT  
CURRENT LIMITED  
SHORT CIRCUIT PROTECTED  
THERMAL PROTECTED  
UNDER VOLTAGE LOCKOUT  
SOFT START (FOR STARTING INDUCTIVE LOADS)  
REVERSE VOLTAGE PROTECTED  
OVER VOLTAGE PROTECTED  
SHIELDED AGAINST NOISE AND RF INTERFERENCE  
INPUT AND OUTPUT FILTERING

#### ELECTRICAL CHARACTERISTICS

##### PARAMETER'S MIN MAX AVG

INPUT VOLTAGE RANGE 18VDC 55VDC 24VDC  
INPUT CURRENT NO LOAD 80MA 150MA 100MA  
INPUT CURRENT FULL LOAD 1.5A @50VDC 4.75A @18VDC 3.5A @24VDC  
OUTPUT VOLTAGE 13.7VDC 13.9VDC 13.8VDC  
OUTPUT CURRENT NO LOAD 20MA 50MA 30MA  
OUTPUT CURRENT FULL LOAD 5.0A 6.5.0A 5.5A  
LINE REGULATION (18-50VDC) .005VDC .015VDC .01VDC  
LOAD REGULATION (.5-5A) .015VDC .250VDC .100VDC  
OUTPUT RIPPLE (5A LOAD) .025VDC .055VDC .04VDC  
SWITCHING FREQUENCY 70KHZ 80KHZ 75KHZ  
EFFICIENCY (1-5A LOAD) 80% 92% 85%  
THERMAL SHUT DOWN (AT SENSOR) 200' F 260' F 240' F  
CASE TEMPERATURE AT SHUT DOWN 120'F 200'F 140' F  
SHORT CIRCUIT VOLTAGE .05VDC 2.0VDC 1.5VDC  
SHORT CIRCUIT CURRENT .1A 1.0A .7A  
UNDER VOLTAGE LOCKOUT 11.4VDC 12.6VDC 12VDC