## **AM20E-C Series**



## 20 watt dc-dc converters

- POWER MODULES FOR PCB MOUNTING
- SYNCHRONOUS RECTIFIER TOPOLOGY
- SURFACE MOUNT TECHNOLOGY
- STANDARD 2"x1" PACKAGE AND PINOUT
- REMOTE ON/OFF CONTROL (OPTIONAL)



## GENERAL DESCRIPTION

Our AM20E-C series is a family of cost effective 20W single output DC-DC converters. These converters are shielded on all six sides and encapsulated with a nickel-coated copper with a non-conductive base and dimensions of 50.8x25.4x10.5mm. The high performance features of our AM20E-C components include short circuit protection with current limit auto recovery, tight line regulation and a high efficiency operation coefficient up to 88%.

Six models operate from an input voltage range of 24 & 48VDC then converts it into output voltages of 2.5, 3,3 & 5VDC. The normal operation is specified over the full operating temperature range of -25°C to +71°C with no derating required. Cooling is done by free air convection.

## **ELECTRICAL SPECIFICATIONS**

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

<b>Input Specifications:</b>		<b>Output Specifications:</b>	
Voltage range	24VDC, 18~36VDC	Voltage accuracy	±2%
	48 VDC, 36~75VDC	Ripple	<0.2% Vout +20mVmax (Vp-p)
Filter	p (Pi) Network	Noise	<0.5% Vout +50mVmax (Vp-p)
		Short circuit protection	Current limit, auto-recovery
Isolation Specifications:	1500V ID G	Over current protection	Works over 120% of rating
Rated voltage	1500VDC	-	and recovers automatically
Resistance	>1000 Mohms	Over voltage protection	Zener diode clamp protection
Capacitance	1000pF	Line regulation (HL-LL)	1 1
General Specifications:		Load regulation (10-100%	1 T = 1
Efficiency	85% to 88%	Temperature coefficient	±0.02%/°C
Switching frequency	400KHz, typ. 100% load		
		<b>Physical Specifications:</b>	
<b>Environmental Specifications:</b>		Dimensions	50.8x25.4x10.5mm,
Operating temperature	-25°C+71°C		2.0x1.0x0.413inches
Storage temperature	-55°C+105°C	Weight	32g
Case temperature	+95°C, max.	Case material	Nickel-Coated Copper
Humidity (non-condensing)	Up to 95%		with Non-Conductive base,
Cooling	Free-air convection		six sides' shielded

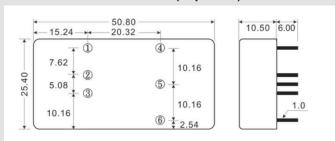
MTBF: > 550,000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)

Specifications are subject to change without notification

# **AM20E-C Series**

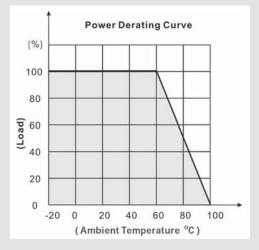
## **OUTLINE DIMENSIONS** & PIN CONNECTIONS

### **MECHANICAL DIMENSION (Top View)**

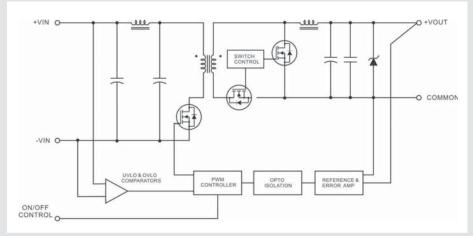


Pin	Single		
1	On/Off Control (Optional)		
2	-V Input		
3	+V Input		
4	-V Iutput		
5	No pin		
6	+V Output		

#### **DERATING**



### **BLOCK DIAGRAM**



## **MODELS** Single output

Models	Input Voltage	Ouput Voltage	Ouput Current max.
AM20E-2402SC		2.5VDC	5000mA
AM20E-2403SC	18VDC-36VDC	3.3VDC	4250mA
AM20E-2405SC		5VDC	4000mA
AM20E-4802SC	36VDC-75VDC	2.5VDC	5000mA
AM20E-4803SC		3.3VDC	4250mA
AM20E-4805SC		5VDC	4000mA