



DRIP5-SERIES



FEATURES

- 1.5 WATTS REGULATED OUTPUT POWER
- OUTPUT CURRENT UP TO 300mA
- STANDARD 1.25 X 0.80 X 0.40 INCH
- HIGH EFFICIENCY UP TO 55%
- INPUT RANGE FROM 4.5VDC TO 5.5VDC, 10.8VDC TO 13.2VDC, AND 21.6VDC TO 26.4VDC
- FIVE-SIDED EMI SHIELD
- LOW OUTPUT RIPPLE & NOISE
- PI TYPE INPUT FILTER
- 500VDC ISOLATION VOLTAGE
- STANDARD 24 PIN DIP PACKAGE & SMD TYPE PACKAGE
- CE MARK MEETS 2006/95/EC, 93/68/EEC AND 2004/108/EC
- DESIGN MEETS UL60950-1, EN60950-1 AND IEC60950-1
- ISO9001 CERTIFIED MANUFACTURING FACILITIES
- COMPLIANT TO RoHS EU DIRECTIVE 2002/95/EC

APPLICATIONS

Wireless Network
Telecom/Datacom
Industry Control System
Measurement Equipment
Semiconductor Equipment

OPTIONS

SMD TYPE

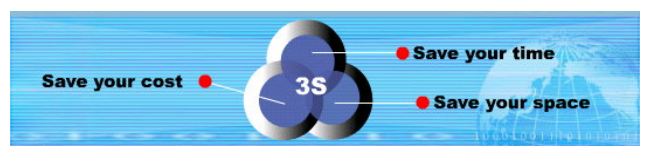
DESCRIPTION

The DR1P5 series offer 1.5 watts of output power from a package in an IC compatible 24 pin DIP configuration without derating to 71°C ambient temperature and pin to pin compatible to MKC03 series. DR1P5 series have input voltage of 4.5-5.5, 10.8-13.2 and 21.6-26.4VDC.

TECHNICAL SPECIFICATION All specifications are typical at nominal input, full load and 25°C otherwise noted

OUTPUT SPECIFICATIONS		
Output power		1.5 Watts, max.
Voltage accuracy	Full load and nominal Vin	± 4%
Minimum load		0%
Line regulation	LL to HL at Full Load	± 0.3%
Load regulation	25% to 100% FL	D05 output others ± 1.5% ± 0.5%
Cross regulation	Asymmetrical load 25% / 100% FL	± 5%
Ripple and noise	20MHz bandwidth	See table
Temperature coefficient		±0.02% / °C, max.
Short circuit protection (Note 6)		1 Sec.
GENERAL SPECIFICATIONS		
Efficiency		See table
Isolation voltage		500VDC, min.
Isolation resistance		10 ⁹ ohms, min.
Isolation capacitance		30pF, max.
Switching frequency		20KHz, min.
Design meet safety standard		IEC60950-1, UL60950-1, EN60950-1
Case material		Nickel-coated copper
Base material		Non-conductive black plastic
Potting material		Epoxy (UL94-V0)
Dimensions		1.25 X 0.80 X 0.40 Inch (31.8 X 20.3 X 10.2 mm)
Weight	DIP	16g (0.55oz)
	SMD	18g (0.62oz)
MTBF (Note 1)	BELLCORE TR-NWT-000332	5.531 x 10 ⁶ hrs
	MIL-HDBK-217F	3.827 x 10 ⁶ hrs

INPUT SPECIFICATIONS		
Input voltage range	5V nominal input	4.5 – 5.5VDC
	12V nominal input	10.8 – 13.2VDC
	24V nominal input	21.6 – 26.4VDC
Input filter		Pi type
ENVIRONMENTAL SPECIFICATIONS		
Operating ambient temperature		-30°C ~ +71°C
Maximum case temperature		+100°C
Storage temperature range		-55°C ~ +105°C
Thermal impedance	Nature convection	20°C/watt
Thermal shock		MIL-STD-810F
Vibration		MIL-STD-810F
Relative humidity		5% to 95% RH
EMC CHARACTERISTICS		
EMI	EN55022	Class A



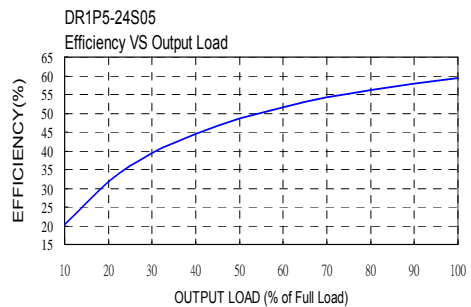
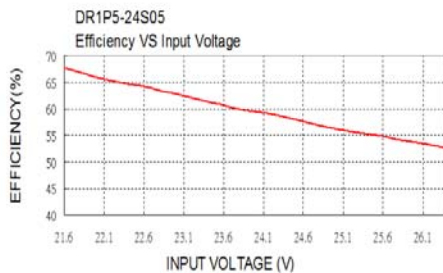
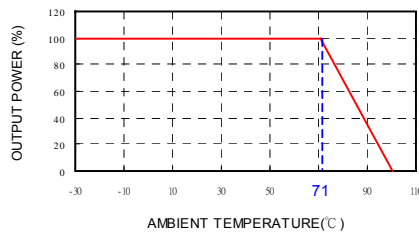


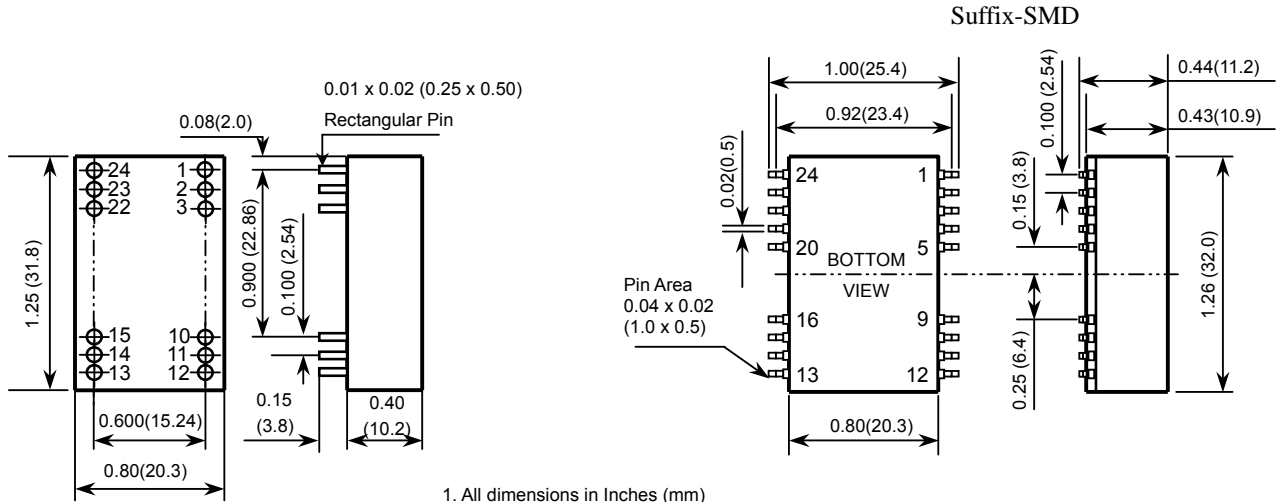
Model Number	Input Range	Output Voltage	Output Current		Output (4) Ripple & Noise	Input Current		Eff (4) (%)	Capacitor Load max ⁽⁵⁾
			Min. load	Full load		No load (3)	Full load (2)		
DR1P5-05S05	4.5 – 5.5 VDC	5 VDC	0mA	300mA	50mVp-p	65mA	600mA	54	470μF
DR1P5-05S12	4.5 – 5.5 VDC	12 VDC	0mA	125mA	50mVp-p	80mA	625mA	52	330μF
DR1P5-05S15	4.5 – 5.5 VDC	15 VDC	0mA	100mA	50mVp-p	95mA	588mA	55	330μF
DR1P5-05D05	4.5 – 5.5 VDC	± 5 VDC	0mA	200mA/-100mA	50mVp-p	50mA	682mA	48	330μF
DR1P5-05D12	4.5 – 5.5 VDC	± 12 VDC	0mA	± 60mA	50mVp-p	90mA	613mA	51	110μF
DR1P5-05D15	4.5 – 5.5 VDC	± 15 VDC	0mA	± 50mA	50mVp-p	100mA	600mA	54	110μF
DR1P5-12S05	10.8 – 13.2 VDC	5 VDC	0mA	300mA	50mVp-p	30mA	245mA	55	470μF
DR1P5-12S12	10.8 – 13.2 VDC	12 VDC	0mA	125mA	50mVp-p	30mA	260mA	52	330μF
DR1P5-12S15	10.8 – 13.2 VDC	15 VDC	0mA	100mA	50mVp-p	40mA	245mA	55	330μF
DR1P5-12D05	10.8 – 13.2 VDC	± 5 VDC	0mA	200mA/-100mA	50mVp-p	30mA	278mA	49	330μF
DR1P5-12D12	10.8 – 13.2 VDC	± 12 VDC	0mA	± 60mA	50mVp-p	45mA	255mA	51	110μF
DR1P5-12D15	10.8 – 13.2 VDC	± 15 VDC	0mA	± 50mA	50mVp-p	40mA	250mA	54	110μF
DR1P5-24S05	21.6 – 26.4 VDC	5 VDC	0mA	300mA	50mVp-p	20mA	125mA	54	470μF
DR1P5-24S12	21.6 – 26.4 VDC	12 VDC	0mA	125mA	50mVp-p	20mA	130mA	52	330μF
DR1P5-24S15	21.6 – 26.4 VDC	15 VDC	0mA	100mA	50mVp-p	20mA	123mA	55	330μF
DR1P5-24D05	21.6 – 26.4 VDC	± 5 VDC	0mA	200mA/-100mA	50mVp-p	15mA	142mA	48	330μF
DR1P5-24D12	21.6 – 26.4 VDC	± 12 VDC	0mA	± 60mA	50mVp-p	20mA	128mA	51	110μF
DR1P5-24D15	21.6 – 26.4 VDC	± 15 VDC	0mA	± 50mA	50mVp-p	20mA	125mA	54	110μF

Note

- BELLCORE TR-NWT-000332. Case 1: 50% Stress, Temperature at 40°C. MIL-HDBK-217F Notice2 @Ta=25 °C, Full load(Ground, Benign, controlled environment).
- Maximum value at nominal input voltage and full load of standard type.
- Typical value at nominal input voltage and no load.
- Typical value at nominal input voltage and full load.
- Test by minimum Vin and constant resistive load.
- Internal fuse is not included, so we suggest to use an input line fuse.

DR1P5-24S05 Derating Curve





1. All dimensions in Inches (mm)
Tolerance: X.XX±0.02 (X.X±0.5)
X.XXX±0.01 (X.XX±0.25)
2. Pin pitch tolerance ±0.01(0.25)
3. Pin dimension tolerance ±0.004 (0.1)

DIP PIN CONNECTION					
PIN	SINGLE	DUAL	PIN	SINGLE	DUAL
1	+ INPUT	+ INPUT	24	+ INPUT	+ INPUT
2	NC	- OUTPUT	23	NC	- OUTPUT
3	NC	COMMON	22	NC	COMMON
10	-OUTPUT	COMMON	15	- OUTPUT	COMMON
11	+OUTPUT	+OUTPUT	14	+OUTPUT	+OUTPUT
12	- INPUT	- INPUT	13	- INPUT	- INPUT

SMD PIN CONNECTION					
PIN	SINGLE	DUAL	PIN	SINGLE	DUAL
1	+ INPUT	+ INPUT	24	+ INPUT	+ INPUT
2	NC	- OUTPUT	23	NC	- OUTPUT
3	NC	COMMON	22	NC	COMMON
10	-OUTPUT	COMMON	15	-OUTPUT	COMMON
11	+OUTPUT	+OUTPUT	14	+OUTPUT	+OUTPUT
12	- INPUT	- INPUT	13	- INPUT	- INPUT
Others	NC	NC	Others	NC	NC

