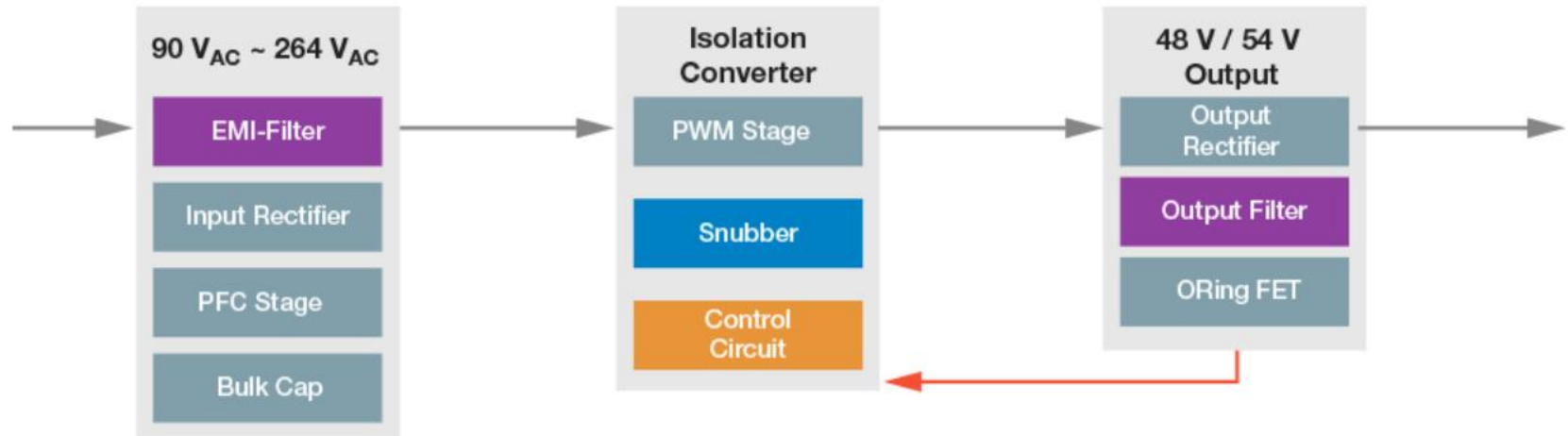


SMPS Telecom Power Supply - Block Diagram



SMPS Telecom Power Supply - Parts

90VAC~264VAC - EMI FILTER

X-CAP

Product Name	Status	Description	Features	Package	Q-Level
F339 X1		Interference Suppression Film Capacitors- Class X1 MKP 330Vac	C=0.001 μ F to 2.2 μ F; AC 330 V Temp=110 °C; 12 class	7.5mm to 27.5mm lead pitch	
F339M X2		Interference Suppression Film Capacitors Class X2- MKP 310Vac	C=0.001 μ F to 4.7 μ F; AC 310 V Temp=110 °C; X2 class	7.5mm to 52.5 mm lead pitch	

Y-CAP

Product Name	Status	Description	Features	Package	Q-Level
YY1		Ceramic Disc Capacitors Safety Standard Approved Disc Capacitor	C=10 pF to 4700 pF;(Y1):500 V (AC), 50 Hz; Temp=- 40 °C to + 125 °C	10 mm lead pitch.	
YY2		Ceramic Disc Capacitors Safety Standard Approved Disc Capacitor	C=68 pF to 10000 pF; (Y2): 300 V (AC), 50 Hz Temp=- 40 °C to + 125 °C	7.5 and 12.5mm lead pitch.	

90VAC~264VAC - INPUT RECTIFIER

BRIDGE DIODE

Product Name	Status	Description	Features	Package	Q-Level
GSIB1560		Single-Phase Single In-Line Bridge Rectifiers	IF(av)=15A;Vrrm=200V to 800V;Ifsm=300A ;Vf=0.95V;Tjmax=150°C	GSIB-5S	
GSIB2560		Single-Phase Single In-Line Bridge Rectifiers	IF(av)=25A;Vrrm=200V to 800V;Ifsm=350A Vf=1V;Tjmax=150°C	GSIB-5S	
LVB1560		High Current Density Single-Phase Bridge Rectifier	IF(av)=15A;Vrrm=600V; Ifsm=400A Vf=0.73V;Tjmax=150°C	GSIB-5S	
LVB2560		High Current Density Single-Phase Bridge Rectifier	IF(av)=25A;Vrrm=600V; Ifsm=550A Vf=0.76V;Tjmax=150°C	GSIB-5S	
PB3506		High Current Density Single-Phase Bridge Rectifier	IF(av)=35A;Vrrm=600V to 1000V;Ifsm=350A Vf=0.90V;Tjmax=150°C	PB	
PB4006		High Current Density Single-Phase Bridge Rectifier	IF(av)=40A;Vrrm=600V to 1000V;Ifsm=300A Vf=0.894V;Tjmax=150°C	PB	

SMPS Telecom Power Supply - Parts

90VAC~264VAC - PFC STAGE

GENERAL RECTIFIER DIODE

Product Name	Status	Description	Features	Package	Q-Level
S8CK		Surface-Mount Glass Passivated Rectifier	IF(av)=8A;Vrrm=600V;Vf=0.87V Tjmax=150°C	DO-214AB(SMC)	

HIGH VOLTAGE MOSFETS

Product Name	Status	Description	Features	Package	Q-Level
SIHG47N60E		E Series Power MOSFET	Vdss=600V;Rdson=0.064Ω;Id=47A;Qg=220nC	TO-247AC	
SIHP22N60AE		E Series Power MOSFET	Vdss=600V;Rdson=0.156Ω;Id=20A;Qg=96nC	TO-220AB	
SIHP33N60E		E Series Power MOSFET	Vdss=600V;Rdson=0.099Ω;Id=33A;Qg=150nC	TO-220AB	

HIGH VOLTAGE RESISTOR

Product Name	Status	Description	Features	Package	Q-Level
VR25		High Ohmic/High Voltage Resistors	High pulse loading capability;Small size	A5;A2;A1;R5;N4	

ULTRA FAST DIODE

Product Name	Status	Description	Features	Package	Q-Level
VS-15ETX06-M3		High Voltage Ultrafast Rectifier	IF(av)=15A;Vrrm=600V;Trr=18nS;Vf=1.5V Tjmax=175°C	TO-220AC	
VS-EPH3006-N3		High Voltage Ultrafast Rectifier	IF(av)=30A;Vrrm=600V;Trr=27nS;Vf=1.4V Tjmax=175°C	TO-247AC	

90VAC~264VAC - BULK CAP

SNAP-IN ALUMINUM CAPACITOR

Product Name	Status	Description	Features	Package	Q-Level
094 series		Aluminum Capacitors; Power Miniaturized Economy Long Life Snap-in	C=47 to 680μF;Vr=400,450V;Temp=-25 to +105 °C Useful life at 105 °C=:2000 hours	22 × 25 to 35 × 50	

SMPS Telecom Power Supply - Parts

ISOLATION CONVERTER - PWM STAGE

HIGH VOLTAGE MOSFETS

Product Name	Status	Description	Features	Package	Q-Level
SIHP21N60EF		EF Series Power MOSFET with Fast Body Diode	Vdss=600V;Rdson=0.176Ω Id=4.1A;Qg=84nC	TO-220AB	
SIHP28N65EF		EF Series Power MOSFET with Fast Body Diode	Vdss=650V;Rdson=0.10Ω;Id=28A;Qg=146nC	TO-220AB	
SIHP33N60EF		EF Series Power MOSFET with Fast Body Diode	Vdss=600V;Rdson=0.098Ω;Id=33A;Qg=155nC	TO-220AB	

ISOLATION CONVERTER - SNUBBER

SWITCH DIODE

Product Name	Status	Description	Features	Package	Q-Level
BYV26EGP		Glass Passivated Ultrafast Rectifier	IF(AV):1.0 A;VRRM:800 V, 1000 V;IFSM:30 A Trr:75 ns;VF:1.3 V;Tj max:175 °C	'DO-204AC (DO-15)	
RS1PD		High Current Density Surface Mount Glass-Passivated Fast Switching Rectifier	IF(AV):1.0 A;VRRM:100V to 600V;IFSM:30 A Trr:150nS~250nS;VF:1.3 V;Tj max:150 °C	'DO-220AA (SMP)	
S1M		Surface Mount Glass Passivated Rectifier	IF(AV):1.0 A;VRRM:50V to1000 V;IFSM:30 A VF:1.1 V;Tj max:150 °C	'DO-214AC (SMA)	

TVS

Product Name	Status	Description	Features	Package	Q-Level
SMBJxD series		Surface-Mount TVS (3.5%)	V(BR) Unidirectional: 6.5V to 288V;V(BR) Bidirectional: 6.5V to 145V PPPM:600W;PD:5W;Tj max:150 °C	DO-214AA (SMB)	

ZENER DIODE

Product Name	Status	Description	Features	Package	Q-Level
PLZ series		500mW Zener diode	V(BR) Unidirectional: 2.0 V to 39 V; PD:500mW; Tj max:150 °C	DO-219AC (MicroSMF)	

SMPS Telecom Power Supply - Parts

ISOLATION CONVERTER - CONTROL CIRCUIT

MLCC

Product Name	Status	Description	Features	Package	Q-Level
VJ...W1BC		Multilayer Ceramic Chip Capacitors	COG(NPO) :C=0.5pF to 39nF,Vr=10V to 100 V X7R:C=100 pF to 47μF,Vr=10V to 100 V	SMD	

OPTOCOUPLER

Product Name	Status	Description	Features	Package	Q-Level
VOL618A		Optocoupler, Phototransistor Output, IF=1mA	VISO=5000VRMS; Tamb: -55 to +125C;CTR:50 to 600	4 pin LSOP, mini-flat	

OPTOCOUPLER

Product Name	Status	Description	Features	Package	Q-Level
VOL617A		Optocoupler, Phototransistor Output, IF=5mA	VISO=5000VRMS; Tamb: -55 to +125C CTR:50 to 600%	4 pin LSOP, mini-flat	

SHUNT RESISTOR

Product Name	Status	Description	Features	Package	Q-Level
WSP3921		Power Metal Strip Resistor	Resistance: 0.2mΩ to 4mΩ, PD: 3W/5W	'SMD	

SMPS Telecom Power Supply - Parts

SWITCH DIODE

Product Name	Status	Description	Features	Package	Q-Level
1N4148WS		Small Signal Fast Switching Diodes	VRRM:100V;VR:75V;IFSM:350mA; IFAV:150mA;Ptot:200mW	'SOD-323	

THIN FILM RESISTOR

Product Name	Status	Description	Features	Package	Q-Level
TNPW series		High Stability Thin Film Flat Chip Resistors	Resistance tol: +/- 1%, +/- 0.5% and +/- 0.1%	SMD	

ZENER DIODE

Product Name	Status	Description	Features	Package	Q-Level
PLZ series		500mW Zener diode	V(BR) Unidirectional: 2.0 V to 39 V PD:500mW; Tj max:150 °C	DO-219AC (MicroSMF)	

48V/54V OUTPUT - OUTPUT RECTIFIER

MIDDLE VOLTAGE MOSFETS

Product Name	Status	Description	Features	Package	Q-Level
SUP60030E		N-Channel 80-V (D-S) MOSFET	Vdss=80V;Rdson=3.4 mΩ;Id=120A;Qg=94nC	'TO-220AB	

ULTRA FAST DIODE

Product Name	Status	Description	Features	Package	Q-Level
VS-30CPU04-N3		High Voltage Ultrafast Rectifier	IF(av)=30A;Vrrm=400V;Trr=36nS;Vf=1.17V Tjmax=175°C	TO-247AC	
VS-60APU04-N3		High Voltage Ultrafast Rectifier	IF(av)=60A;Vrrm=400V;Trr=50nS;Vf=1.05V Tjmax=175°C	TO-220AC	

SMPS Telecom Power Supply - Parts

48V/54V OUTPUT - OUTPUT FILTER

ALUMINUM CAP

Product Name	Status	Description	Features	Package	Q-Level
136RVI		Aluminum Capacitors Radial Very Low Impedance	22 to 10000 μ F; Vr=10 to 100 V; Temp=-55 to +105°C Useful life at 105 °C=:4000 to 10000 hours	10 × 12 to 18 × 35	

MLCC

Product Name	Status	Description	Features	Package	Q-Level
VJ...W1BC		Surface Mount Multilayer Ceramic Chip Capacitors	COG(NPO) :C=0.5pF to 39nF, Vr=10V to 100 V X7R:C=100 pF to 47 μ F, Vr=10V to 100 V	SMD	

48V/54V OUTPUT - ORING FET / DIODE

LOW VOLTAGE MOSFETS

Product Name	Status	Description	Features	Package	Q-Level
SUP60030E		N-Channel 80-V (D-S) MOSFET	Vdss=80V; Rds(on)=3.4 m Ω ; Id=120A; Qg=94nC	'TO-220AB	

SCHOTTKY DIODE

Product Name	Status	Description	Features	Package	Q-Level
VT3080S-E3		Trench MOS Barrier Schottky Rectifier	IF(AV)= 30A; VRRM=80V ; VF=0.73 V Tj max.=150 °C	'TO-220AB	