

# isc N-Channel MOSFET Transistor

### **APT84F50B2**

#### **FEATURES**

- Drain Current –I<sub>D</sub>= 84A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>=500V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)} = 0.065 \Omega (Max)$
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



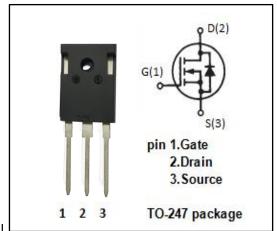
 Designed for use in switch mode power supplies and general purpose applications.

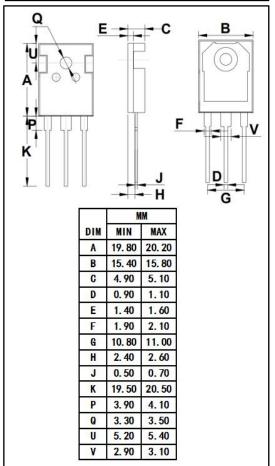
### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
$V_{\text{DSS}}$	Drain-Source Voltage	500	
V <sub>GS</sub>	Gate-Source Voltage-Continuous ±30		V
ΙD	Drain Current-Continuous 84		А
I <sub>DM</sub>	Drain Current-Single Pluse 270		А
P <sub>D</sub>	Total Dissipation @Tc=25℃ 1135		W
TJ	Max. Operating Junction Temperature	Operating Junction Temperature -55~150	
T <sub>stg</sub>	Storage Temperature	-55~150	$^{\circ}$ C

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.11	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>J</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	500		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	$V_{DS}$ = $V_{GS}$ ; $I_D$ = 2.5mA	2.5	5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =42A		0.065	Ω
Igss	Gate-Body Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0 V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0@T <sub>J</sub> =125°C		250 1000	μА
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> =-42A; V <sub>GS</sub> = 0		1.0	V

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