

# isc N-Channel MOSFET Transistor

# APT20M45BVFR

### FEATURES

- Drain Current –I\_D= 56A@ T\_C=25 $^\circ\!\mathrm{C}$
- Drain Source Voltage-: V<sub>DSS</sub>=200V(Min)
- Static Drain-Source On-Resistance : R<sub>DS(on)</sub> =0.045 Ω (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### DESCRIPTION

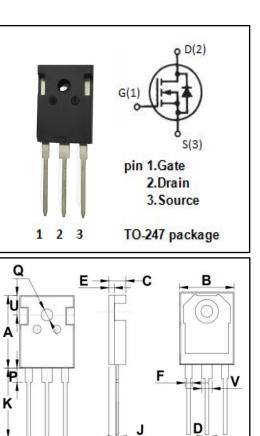
 Designed for use in switch mode power supplies and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25 C)						
SYMBOL	PARAMETER VALUE		UNIT			
V <sub>DSS</sub>	Drain-Source Voltage	200	V			
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V			
ID	Drain Current-Continuous 56		A			
I <sub>DM</sub>	Drain Current-Single Pluse	224	А			
PD	Total Dissipation @Tc=25℃	300	W			
TJ	Max. Operating Junction Temperature	-55~150	°C			
T <sub>stg</sub>	Storage Temperature	-55~150	°C			

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.42	°C/W







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### **ELECTRICAL CHARACTERISTICS**

#### $T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA	200		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 1mA	2	4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =28A		0.045	Ω
lgss	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	$V_{DS}$ = 200V; $V_{GS}$ = 0 $V_{DS}$ = 160V; $V_{GS}$ = 0@T <sub>J</sub> =125°C		250 1000	μA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> =56A; V <sub>GS</sub> = 0		1.3	V

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