

isc N-Channel MOSFET Transistor**APT20M45BVR****FEATURES**

- Drain Current $-I_D=56A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DS}=200V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)}=0.045\ \Omega (\text{Max})$
- 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($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	56	A
I_{DM}	Drain Current-Single Pluse	224	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	300	W
T_J	Max. Operating Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.42	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	200		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=1\text{mA}$	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=28\text{A}$		0.045	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}$; $V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=200\text{V}$; $V_{GS}=0$ $V_{DS}=160\text{V}$; $V_{GS}=0@T_J=125^{\circ}\text{C}$		25 250	μA
V_{SD}	Forward On-Voltage	$I_S=56\text{A}$; $V_{GS}=0$		1.3	V

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