

**isc N-Channel MOSFET Transistor****IRFPE40****• FEATURES**

- With TO-247 packaging
- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

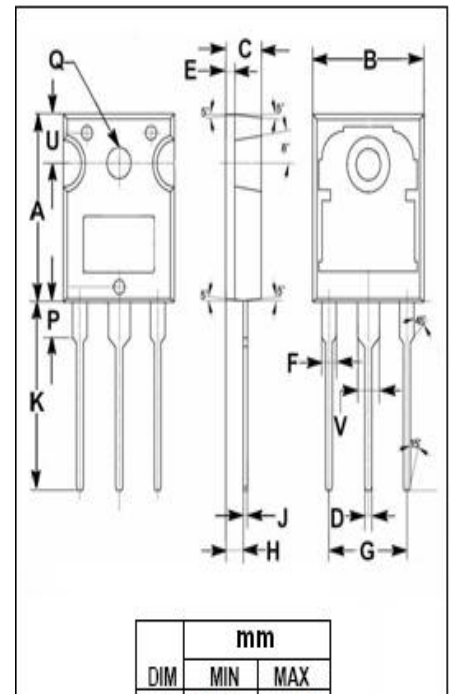
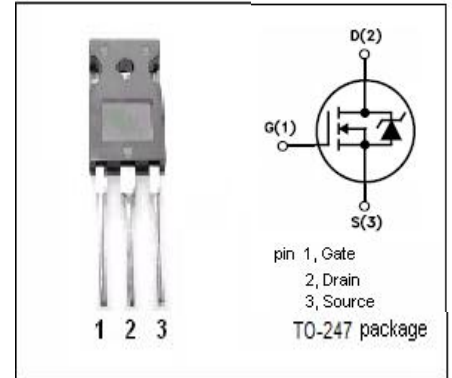
- Switching applications

**• ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	800	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous @ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$	5.4 3.4	A
$I_{DM}$	Drain Current-Single Pulsed	22	A
$P_D$	Total Dissipation	150	W
$T_j$	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^{\circ}\text{C}$

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.83	$^{\circ}\text{C}/\text{W}$



DIM	mm	
	MIN	MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

**isc N-Channel MOSFET Transistor****IRFPE40****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V$ ; $I_D=0.25mA$	800			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$ ; $I_D=0.25mA$	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V$ ; $I_D=3.2A$			2.0	$\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 20V$ ; $V_{DS}=0V$			$\pm 0.1$	$\mu A$
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=800V$ ; $V_{GS}=0V$ ; @ $T_c=25^{\circ}\text{C}$ $V_{DS}=640V$ ; $V_{GS}=0V$ ; $T_c=125^{\circ}\text{C}$			100 500	$\mu A$
$V_{SDF}$	Diode forward voltage	$I_{SD}=5.4A$ , $V_{GS}=0V$			1.8	V

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