

Isc N-Channel MOSFET Transistor

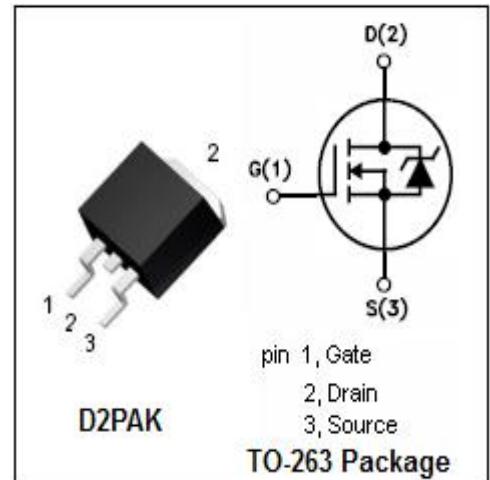
IRFZ44VZS

• FEATURES

- With To-263(D2PAK) package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications

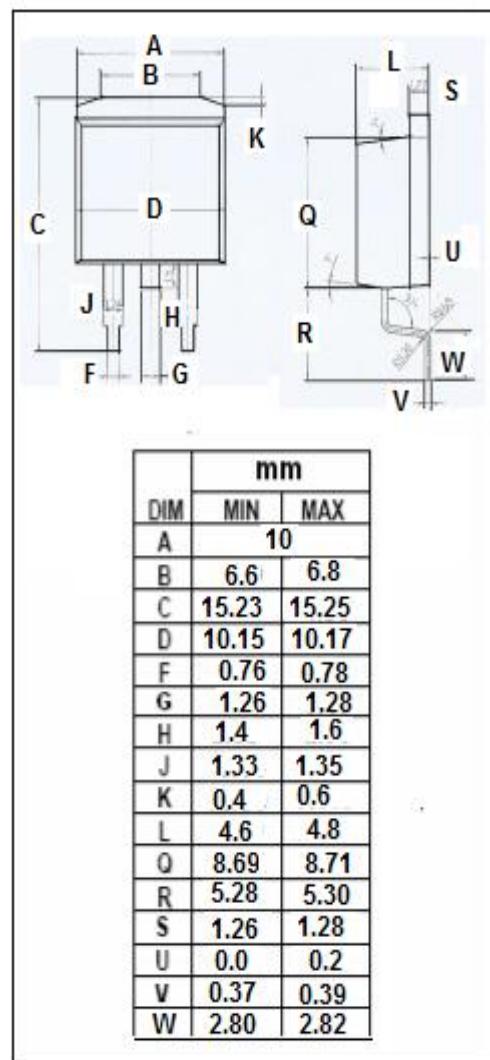


• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GSS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	57 40	A
I_{DM}	Drain Current-Single Pulsed	230	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	92	W
T_{ch}	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.64	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C}/\text{W}$



Isc N-Channel MOSFET Transistor**IRFZ44VZS****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_{\text{D}}=0.25\text{mA}$	60			V
$\text{V}_{\text{GS}(\text{th})}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=\text{V}_{\text{GS}}; \text{I}_{\text{D}}=0.25\text{mA}$	2.0		4.0	V
$\text{R}_{\text{DS}(\text{on})}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}= 10\text{V}; \text{I}_{\text{D}}=34\text{A}$		9.6	12	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= \pm 20\text{V}; \text{V}_{\text{DS}}=0\text{V}$			± 0.2	μA
I_{DSS}	Drain-Source Leakage Current	$\text{V}_{\text{DS}}=60\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=25^\circ\text{C}$ $\text{V}_{\text{DS}}=60\text{V}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_j=125^\circ\text{C}$			20 250	μA
V_{SDF}	Diode forward voltage	$\text{I}_{\text{SD}}=34\text{A}, \text{V}_{\text{GS}} = 0 \text{ V}$			1.3	V

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