

isc N-Channel MOSFET Transistor

IXFP8N65X2

• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 650V$ (Min)
- Static drain-source on-resistance:
 $R_{DS(on)} \leq 450m\Omega @ V_{GS}=10V$
- Fully characterized avalanche voltage and current
- 100% Avalanche Tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

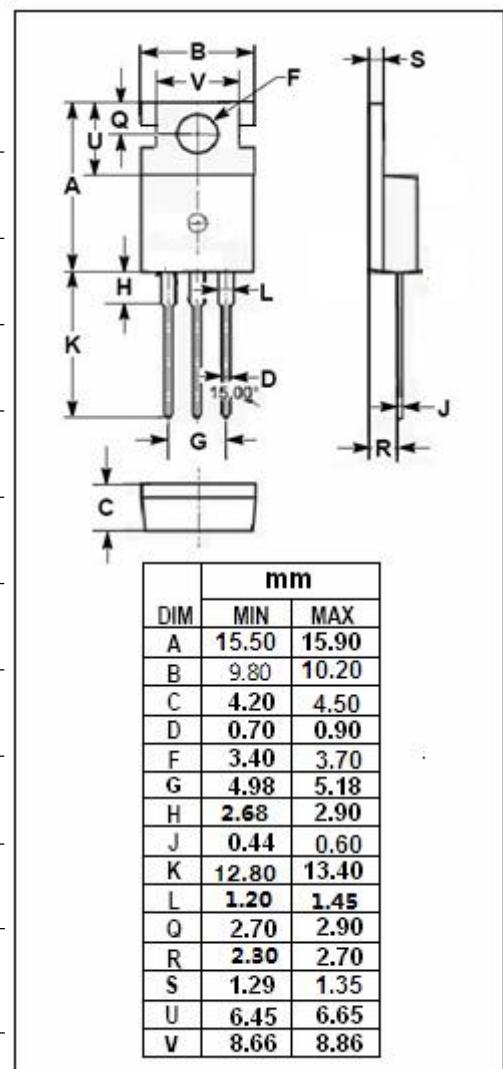
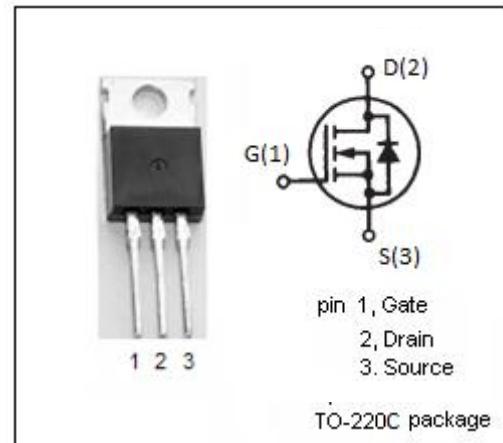
- Switched mode power supplies
- DC-DC converters

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	8	A
I_{DM}	Drain Current-Single Pulsed	16	A
P_D	Total Dissipation @ $T_c=25^\circ C$	150	W
T_j	Operating Junction Temperature	-55~150	°C
T_{stg}	Storage Temperature	-55~150	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.83	°C/W



isc N-Channel MOSFET Transistor**IXFP8N65X2****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_D=250 \mu\text{A}$	650		V
$\text{V}_{\text{GS(th)}}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=\text{V}_{\text{GS}}; \text{I}_D=250 \mu\text{A}$	3	5	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}=10\text{V}; \text{I}_D=4\text{A}$		450	$\text{m}\Omega$
I_{GSS}	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= \pm 30\text{V}; \text{V}_{\text{DS}}=0\text{V}$		± 100	nA
I_{DSS}	Drain-Source Leakage Current	$\text{V}_{\text{DS}}= \text{V}_{\text{DSS}}; \text{V}_{\text{GS}}= 0\text{V}$		10	μA
		$\text{V}_{\text{DS}}= \text{V}_{\text{DSS}}; \text{V}_{\text{GS}}= 0\text{V}; \text{T}_J= 125^\circ\text{C}$		500	
V_{SD}	Diode forward voltage	$\text{I}_F= 8\text{A}; \text{V}_{\text{GS}}= 0\text{V}$		1.4	V

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