

## isc P-Channel MOSFET Transistor

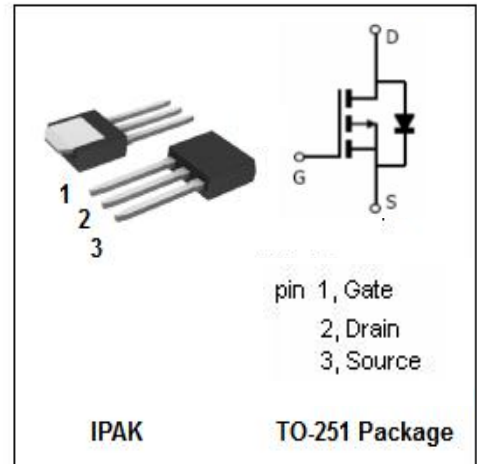
## SPU30P06P

## • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 75\text{m}\Omega$  (@  $V_{GS} = -10\text{V}$ ;  $I_D = -21.5\text{A}$ )
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • APPLICATIONS

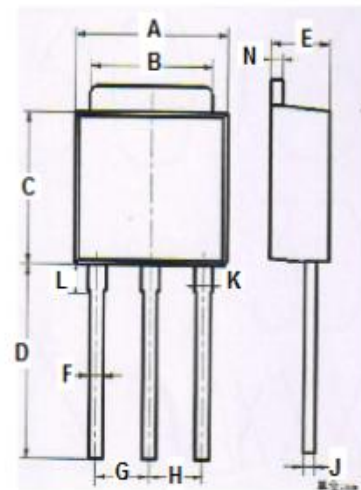
- Fast switching application.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	-60	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	-30	A
$P_D$	Total Dissipation @ $T_c=25^\circ\text{C}$	125	W
$T_j$	Max. Operating Junction Temperature	-55~175	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~175	$^\circ\text{C}$

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	1.2	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A	6.40	6.48
B	5.10	5.50
C	5.80	6.20
D	9.20	9.60
E	2.20	2.40
F	0.50	0.70
G	2.09	2.49
H	2.09	2.49
J	0.40	0.60
K	0.70	0.90
L	1.60	2.00
N	0.40	0.60

**isc P-Channel MOSFET Transistor****SPU30P06P****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = -250uA	-60		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = -1.7mA	-2.1	-4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = -10V; I <sub>D</sub> = -21.5A		75	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V		± 100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = -60V; V <sub>GS</sub> = 0V		-1	μA
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = -30A, V <sub>GS</sub> = 0V		-1.7	V

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