

## isc N-Channel MOSFET Transistor

SPI11N60S5

### • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 3m\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • DESCRIPTION

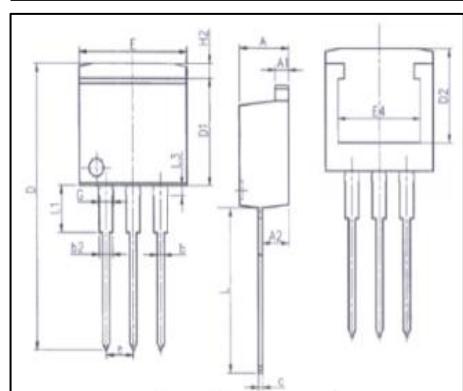
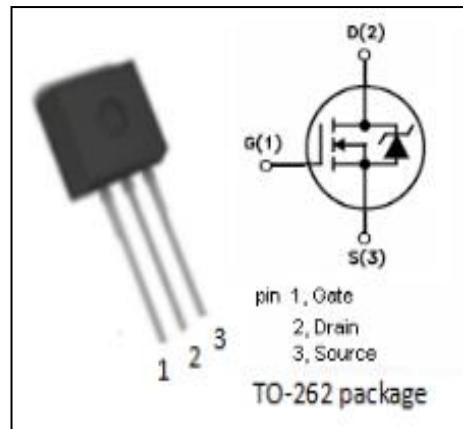
- reliable device for use in a wide variety of applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	600	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	11	A
$I_{DM}$	Drain Current-Single Pulsed	22	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	125	W
$T_j$	Max. Operating Junction Temperature	-55~150	°C
$T_{Stg}$	Storage Temperature	-55~150	°C

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1	°C/W



DIM	mm	
	MIN	MAX
A	4.37	4.77
A1	1.22	1.42
A2	2.47	2.87
b	0.70	0.97
b2	1.17	1.42
c	0.28	0.53
D	23.20	24.02
D1	8.38	8.90
D2	6.00	—
E	9.90	10.39
E4	7.30	—
e	2.54BSC	
G	1.25	1.50
H2	—	1.31
L	13.34	14.10
L1	3.30	4.06
L3	0.95	1.15

**isc N-Channel MOSFET Transistor****SPI11N60S5****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

<b>SYMBOL</b>	<b>PARAMETER</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNIT</b>
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =0.25mA	600			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =500 μ A	3.5		5.5	V
R <sub>DSS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =7A			380	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> =20V; V <sub>DS</sub> =0V			0.1	μ A
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =600V; V <sub>GS</sub> = 0V			25	μ A
V <sub>SD</sub>	Diode forward voltage	I <sub>F</sub> =11A, V <sub>GS</sub> = 0 V			1.2	V

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