

## isc P-Channel MOSFET Transistor

## SPD15P10PL

## • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 270\text{m}\Omega$  (@  $V_{GS} = -4.5\text{V}$ ;  $I_D = -9.7\text{A}$ )
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • APPLICATIONS

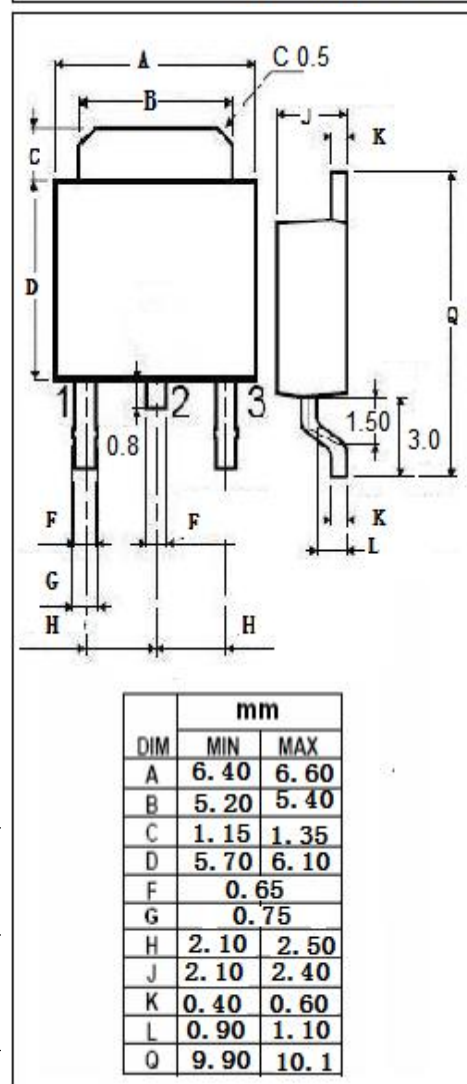
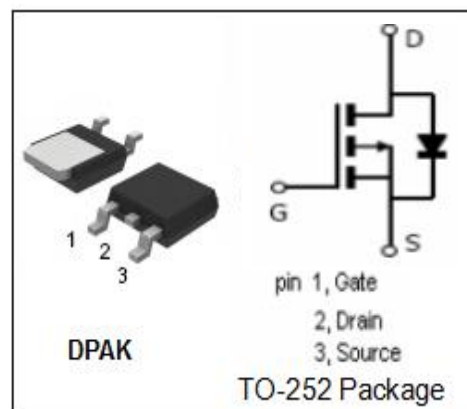
- Fast switching application.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	-100	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	-15	A
$P_D$	Total Dissipation @ $T_c = 25^\circ\text{C}$	128	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	1.17	$^\circ\text{C/W}$



**isc P-Channel MOSFET Transistor****SPD15P10PL****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	-100		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = -1.54mA	-1	-2	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = -4.5V; I <sub>D</sub> = -9.7A		270	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> = -100V; V <sub>GS</sub> = 0V		-1	μA
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = -15A, V <sub>GS</sub> = 0V		-1.35	V

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