

## isc N-Channel MOSFET Transistor

IPD50R950CE, IIPD50R950CE

### • FEATURES

- Static drain-source on-resistance:  $R_{DS(on)} \leq 0.95\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • DESCRIPTION

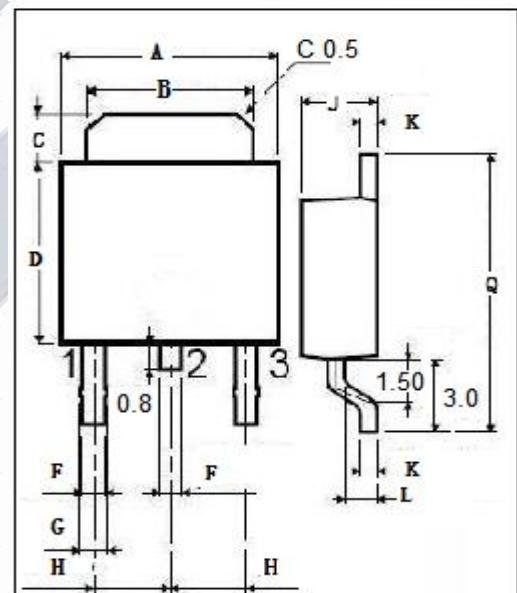
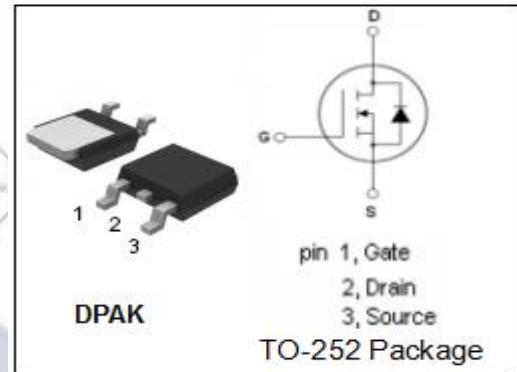
- Fast switching
- Very high commutation ruggedness

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	500	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	6.6	A
$I_{DM}$	Drain Current-Single Pulsed	12.8	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	53	W
$T_j$	Max. Operating Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55~150	°C

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	2.35	°C/W
$R_{th(j-a)}$	Channel-to-ambient thermal resistance	62	°C/W



**isc N-Channel MOSFET Transistor      IPD50R950CE,IIPD50R950CE****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0\text{V}; I_D=1\text{mA}$	500			V
$V_{GS(\text{th})}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=0.1\text{mA}$	2.5		3.5	V
$R_{DS(\text{on})}$	Drain-Source On-Resistance	$V_{GS}=13\text{V}; I_D=1.2\text{A}$			0.95	$\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}= 20\text{V}; V_{DS}=0\text{V}$			0.1	$\mu\text{A}$
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=500\text{V}; V_{GS}= 0\text{V}$			1	$\mu\text{A}$
$V_{SD}$	Diode forward voltage	$I_F=1.6\text{A}, V_{GS} = 0\text{V}$		0.83		V