

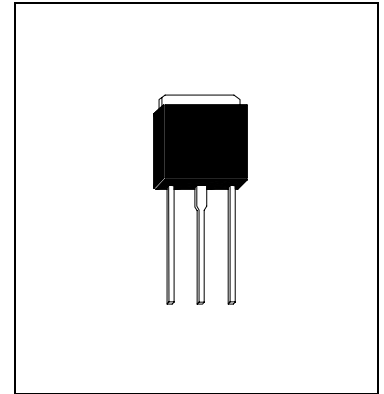


# HSK2474I

N - Channel MOSFETs

## Description

- Dynamic dv/dt Rating
- Repetitive Avalanche rated
- Surface Mount
- Straigh Lead
- Available in Tape&Reel
- Fast Switching
- Ease of Paralleling



## Features

- Low Drain-Source ON Resistance -  $R_{DS(ON)}=1.2\Omega(\text{Typ.})@ V_{DS}=10V, I_D=1.3A$
- High Forward Transfer Admittance  $-|Y_{fs}|=1.2S@V_{DS}=50V, I_D=1.3A$
- Low Leakage Current -  $I_{DSS}=100\mu A (\text{Max.})@V_{DS}=200V$
- Enhancement-Mode -  $V_{th} = 2.0\sim 4.0V@V_{DS}=4V, I_D=250\mu A$

## Absolute Maximum Ratings (Ta=25°C)

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C
- Maximum Power Dissipation
  - Total Power Dissipation (Tc=25°C) ..... 25 W
- Maximum Voltages and Currents
  - Drain to Source Breakdown Voltage ..... 250 V
  - Drain to Gate Breakdown Voltage..... 250 V
  - Gate to Source Voltage..... ± 20 V
  - Drain Current (Cont.) ..... 2.2 A
  - Drain Current (Pluse.)..... 8.8 A

## Thermal Characteristics

Characteristic	Symbol	Max.	Units
Junction to Case	$R_{\theta JC}$	5	°C/W
Junction to Ambient	$R_{\theta JA}$	50	°C/W

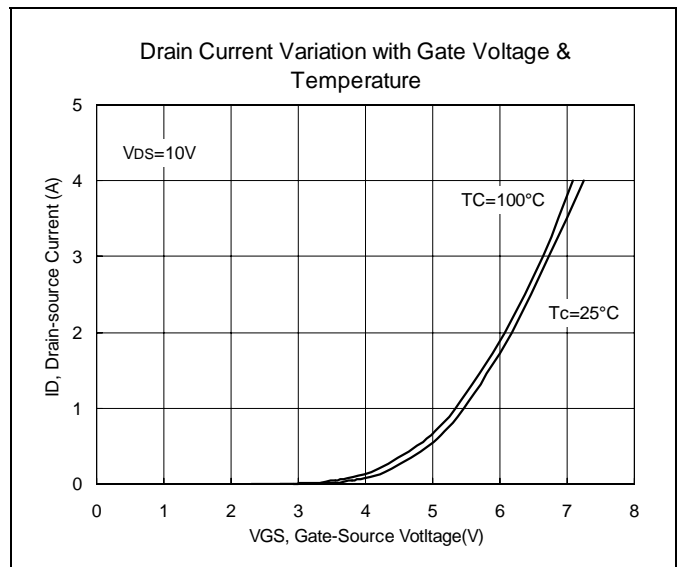
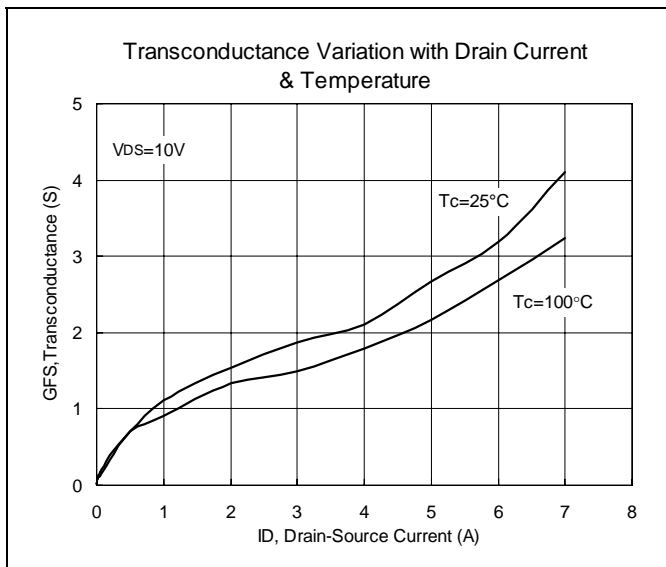
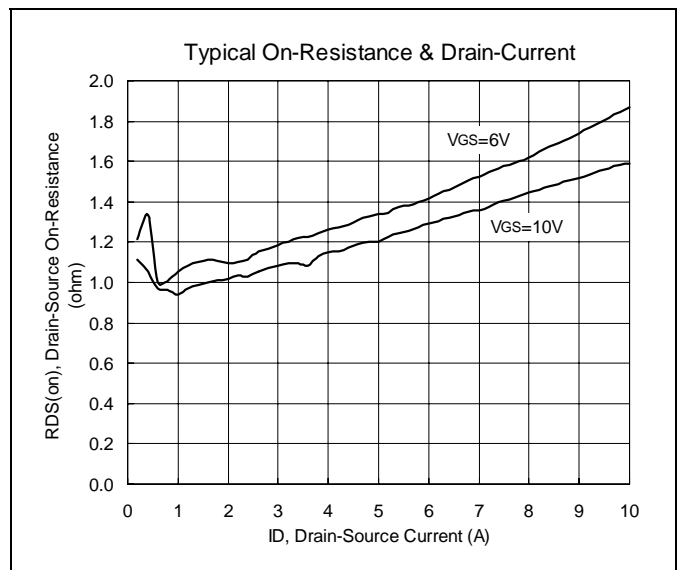
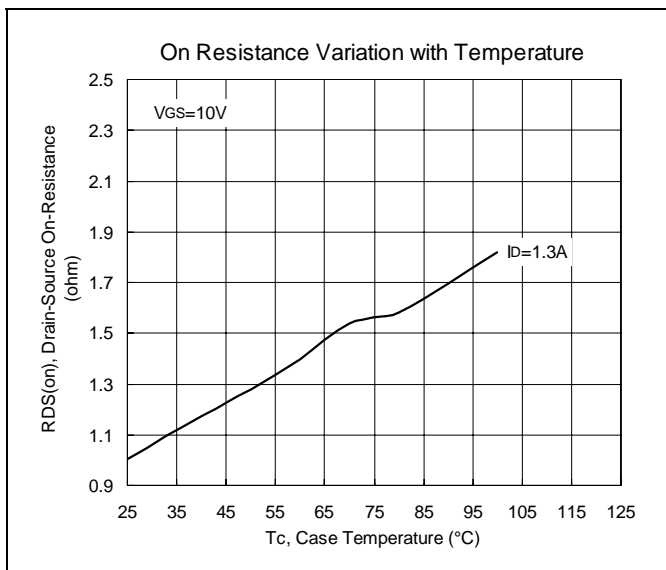
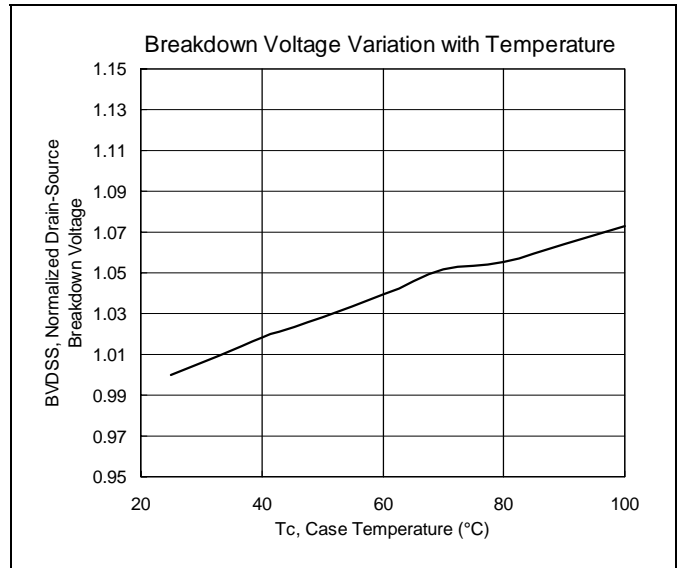
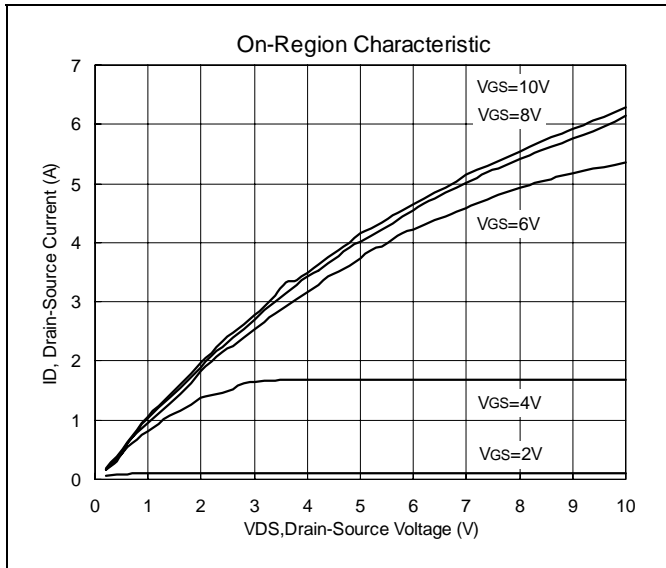


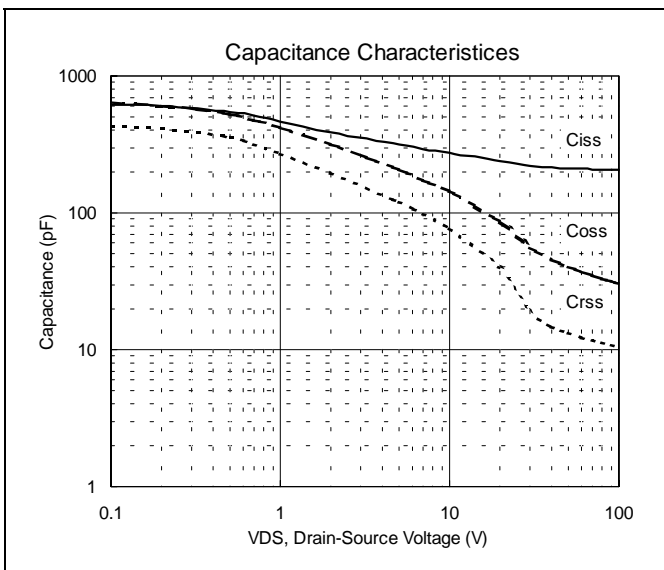
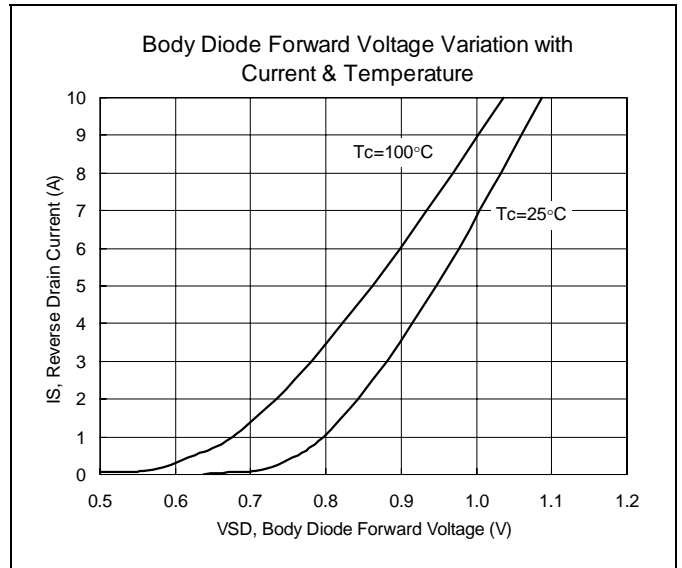
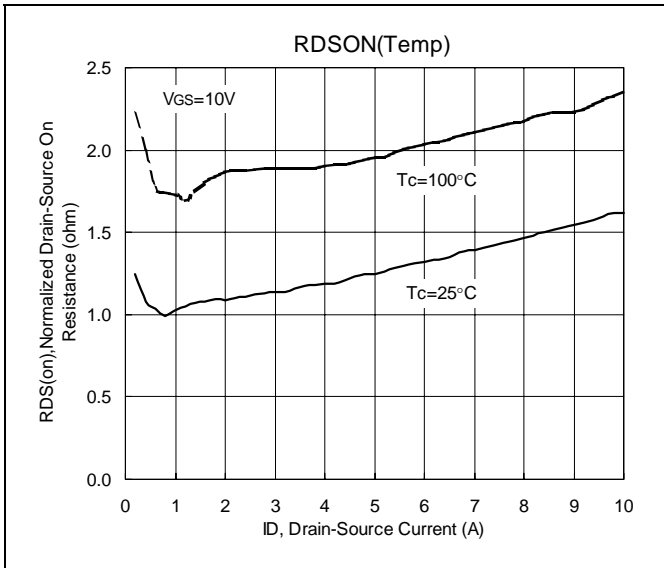
### Electrical Characteristics (Ta=25°C)

Characteristics	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	250	-	-	V	$I_D=250\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	2.0	-	4.0	V	$V_{DS}=4V, I_D=250\mu A$
Drain Cut-Off Current	$I_{DSS}$	-	-	25	$\mu A$	$V_{DS}=200V$
Gate Leakage Current	$I_{GSS}$	-	-	$\pm 100$	$\mu A$	$V_{GS}=\pm 20V$
Forward Transconductance	$g_{fs}$	0.80	1.2	-		$V_{DS}=50V, I_D=1.3A$
Drain-Source ON Resistance	$R_{DS(ON)}$	-	1.2	2.0	$\Omega$	$V_{GS}=10V, I_D=1.3A$
Input Capacitance	$C_{iss}$	-	280	-	pF	$V_{DS}=10V, V_{GS}=0V$ $f=1.0MHz$
Reverse Transfer Capacitance	$C_{rss}$	-	30	-	pF	
Output Capacitance	$C_{oss}$	-	42	-	pF	
Switching Time	$t_r$	-	45	-	nS	$V_{DD}=100V, I_D=1.0A$ $R_G=24\Omega, R_D=45\Omega$
	$t_{on}$	-	30	-		
	$t_f$	-	45	-		
	$T_{off}$	-	135	-		
Total Gate Charge (Gate-Source Plus Gate-Drain)	$Q_g$	-	-	8.2	nC	$I_D=2.7A, V_{DS}=200V$
Gate-Source Charge	$Q_{gs}$	-	-	1.8	nC	$V_{GS}=10V$
Gate-Drain Charge (Miller)	$Q_{gd}$	-	-	4.5	nC	



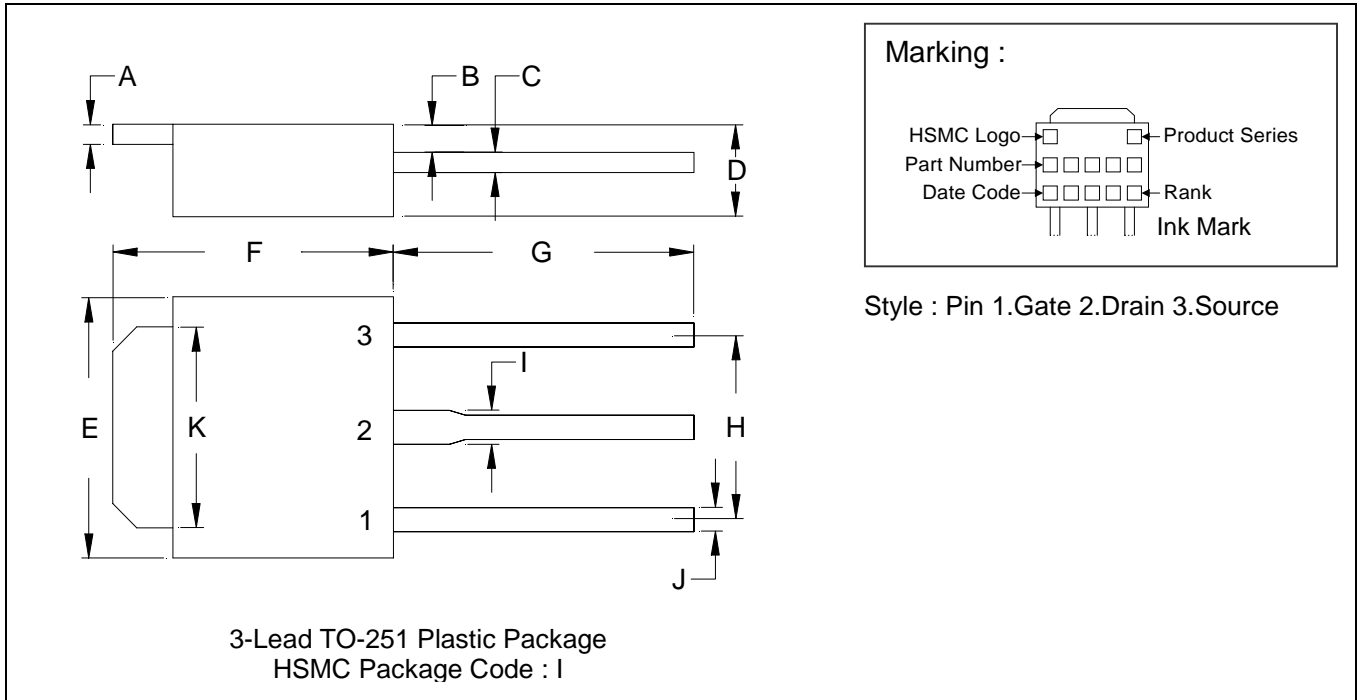
### Characteristics Curve







## TO-251 Dimension



Style : Pin 1.Gate 2.Drain 3.Source

\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0177	0.0217	0.45	0.55	G	0.2559	-	6.50	-
B	0.0354	0.0591	0.90	1.50	H	-	*0.1811	-	*4.60
C	0.0177	0.0236	0.45	0.60	I	-	0.0354	-	0.90
D	0.0866	0.0945	2.20	2.40	J	-	0.0315	-	0.80
E	0.2520	0.2677	6.40	6.80	K	0.2047	0.2165	5.20	5.50
F	0.2677	0.2835	6.80	7.20					

**Notes :** 1.Dimension and tolerance based on our Spec. dated May. 24,1995.  
 2.Controlling dimension : millimeters.  
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material :**

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

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