PCF240W
PCF240D

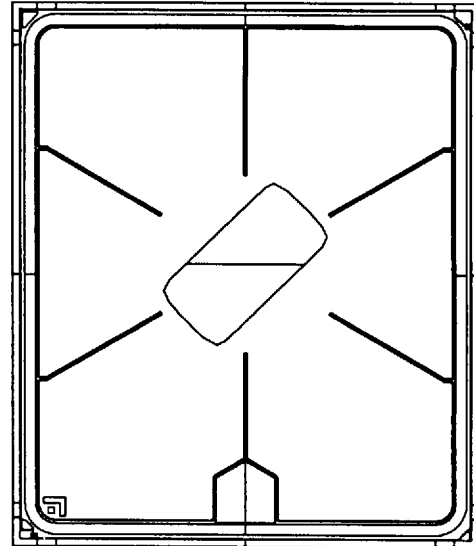
January 1993

N-Channel MOS Chip

Features

- **Passivated**
- **Contact Metallization**
  - **Gate and Source - Aluminum**
  - **Drain - Tri-Metal (Al-Ti-Ni)**
- **Die Visually Inspected to a 1.0% AQL Mil-Std-750, Method 2072**
- **Harris Packaged Products Manufactured From This Die:**
  - **IRF640**
  - **IRFP240**
  - **IRF240**
- **PCF240W Die Shipped in Unsawn Probed Wafer Form**
- **PCF240D Die Shipped in Waffle Pack**

Die



DIE SIZE: 170 x 200 mils

SOURCE ATTACH AREA 30 x 60 mils

GATE ATTACH AREA 23 x 24 mils

BACK SIDE DRAIN

Electrical Characteristics At +25°C. The Chip is 100% Tested to the Actual Conditions and Limits Specified

CHARACTERISTIC	TEST CONDITIONS	LIMITS		UNITS
		MIN	MAX	
BV_{DSS}	$I_D = 250\mu A$, $V_{GS} = 0V$	200	-	V
$V_{GS(th)}$	$I_D = 250\mu A$, $V_{GS} = V_{DS}$	2.0	4.0	V
I_{DSS}	$V_{DS} = 200V$	-	10	µA
I_{GSS}	$V_{GS} = 30V$, $V_{DS} = 0V$	-	90	nA
$r_{DS(OB)}$ (Note 1)	$I_D = 5A$, $V_{GS} = 10V$	-	180	MΩ
gfs (Note 1)	$V_{DS} = 10V$, $I_D = 5A$	6.7		mho

NOTE:

1. Pulsed: Pulse Duration = 300µs Max, Duty Factor = 2%

CAUTION: These devices are sensitive to electrostatic discharge. Users should follow proper I.C. Handling Procedures.

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Recommended Chip Bonding Procedure

The following tables of Chip Bonding Information list the typical recommended methods for top and bottom chip attachments. However, it is the sole responsibility of the user to achieve the conditions necessary for proper mounting and bonding due to the wide variation in techniques available.

Chip Bonding Information

DEVICE CLASS	TOP METAL	CONTACT METHOD	BOND	MAX RECOMMENDED WIRE DIAMETER	WIRE MATERIAL
TOP SIDE					
MOSFET Transistor	Al; (40KÅ)	Wire	Stitch	8/15 mils	Al

DEVICE CLASS	BACK METAL	CONTACT METHOD	MATERIAL	MOUNT TEMPERATURE	SCRUB	PREFORM
BOTTOM SIDE						
MOSFET Transistor	Al, Ti, Ni	Soft Solder	PbSn	415°C in H_2 < 100ppm H_2O	Yes	Recom-mended

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