

# Rad hard MOSFET nomenclature

**IR HL YS 7 9 7 0 3 4 C M - SCS A 00**

## Transistor type

- H** = Radiation hardened HEXFET
- HL** = Rad hard logic level MOSFET
- HS** = Rad hard synchronous rectifier
- HSL** = Rad hard sync. rectifier (low inductance)

## Package designator

All packages have metal lids unless otherwise noted

- Blank** = TO-204AA, AE (TO-3)
- C** = Chip / die (no package)
- W** = Wafer (no package)
- E** = LCC-18
- F** = (T2) TO-205AF (TO-39, low profile)
- G** = (M1) MO-036AB (14 lead ceramic DIP)
- I** = TO-259AA
- MB** = (D4) TO-254AA tabless, low ohmic
- MK** = TO-254AA tabless, low ohmic, surface mount lead formed - at surface plane
- ML** = (D1) TO-254AA tabless, low ohmic, surface mount lead formed - below surface plane
- MS** = (T1) TO-254AA low ohmic
- N** = (U1) SMD-1
- NA** = (U2) SMD-2 (U2L) SMD-2 with leads ("A" lead option) (U2S) SMD-2 on carrier ("D" lead option)
- NJ** = (U3) SMD-0.5, metal lid
- NJC** = SMD-0.5, ceramic lid
- NKC** = SMD-0.5e, ceramic lid, high-voltage
- NM** = (U8) SMD-0.2, metal lid
- NMC** = SMD-0.2, ceramic lid
- NPC** = SMD-0.1, ceramic lid
- NS** = (U2A) SupIR-SMD™
- PB** = Power Block, isolated
- Q** = LCC-28 (quad die)
- UB** = (UB) LCC-4, metal lid, shielded - tied to 4th pin
- UBC** = LCC-4, ceramic lid, shielded
- UBCN** = LCC-3, ceramic lid, isolated
- UBN** = LCC-3, metal lid, isolated
- UC** = (UC) LCC-6
- V** = (T8) TO-258AA
- Y** = (T3) TO-257AA
- YA** = TO-257AA tabless
- YB** = (D5) TO-257AA tabless, low ohmic
- YJ** = (Dx) TO-257AA tabless, surface mount lead formed
- YK** = TO-257AA tabless, low ohmic, surface mount lead formed
- YS** = TO-257AA low ohmic

## Technology

- Blank** = Gen 4
- 5** = R5
- 5S** = R5, S-line
- 6** = R6
- 6S** = R6, S-line
- 7** = R7
- 7S** = R7, S-line
- 8** = R8
- 9A** = R9
- CS** = CoolMOS Space

## Channel

- Blank** = N-channel
- 6** = Mixed N and P channel
- 9** = P-channel

## Lead option (see notes)

- A** = Lead form down on TO-25x (if package is SMD, then lead attached)
- B** = Lead form up on TO-25x (if package is SMD, then lead attached and formed)
- C** = Lead trimmed
- D** = On DBC carrier, applies only to SMD-1 and SMD-2

## Screening Level

- Blank** = no screening, COTS
- IR HiRel controlled drawing, die level**
- CDV** = 100% visual screening
- CDH** = H level
- CDK** = K level
- IR HiRel qualified lot, packaged level**
- SCX** = TX level, equivalent
- SCV** = TXV level, equivalent
- SCS** = S level, equivalent

## Process variation

- SE** = Single event effect tolerant (applicable only to R4 & R5)

## Pinout

(applies only to TO-257AA package)

- |                      |                      |
|----------------------|----------------------|
| <b>Blank</b>         | <b>M</b>             |
| <b>Pin1</b> = Gate   | <b>Pin1</b> = Drain  |
| <b>Pin2</b> = Drain  | <b>Pin2</b> = Source |
| <b>Pin3</b> = Source | <b>Pin3</b> = Gate   |

## Package variation

- Blank** = glasseyelet (TO-257AA)
- C** = ceramic eyelet (TO-257AA)

## Voltage adder

- 0** = full spec rating (does not apply to 60V devices)
- 3** = 30V, e.g. 1x3 is 130V
- 4** = 50V, e.g. 2x4 is 250V or, 0x4 is 60V

## Die size

- 1** = die size 1
- 2** = die size 1.7 & 2
- 3** = die size 3
- 4** = die size 4
- 5** = die size 5
- 6** = die size 6
- A** = die size 10
- Z** = smallest size

## Voltage

- 0** = 60V
- 1** = 100V (or 130V or 150V with voltage adder)
- 2** = 200V (or 250V with voltage adder)
- 3** = 400V
- 4** = 500V (or 550V with voltage adder)
- C** = 600V
- Y** = 20V
- Z** = 30V

## Total dose hardness

- Blank** = 100 krad(Si) "R" P-channel (G4 only)
- 3** = 300 krad(Si) "F"
- 4** = 600 krad(Si)
- 5** = 500 krad(Si) "G"
- 7** = 100 krad(Si) "R"
- 8** = 1000 krad(Si) "H"

## Special suffix (see bottom)

## Special Suffix

- 00** = Gold finish - no solder dip
- 01** = CSI, customer source inspection
- 02** = Gold finish & CSI
- 03** = DPA
- 04** = DPA & gold finish
- 05** = DPA & gold finish & CSI
- 06** = X-Ray
- 07** = X-Ray & gold finish
- 08** = X-Ray & gold finish & CSI
- 09** = X-Ray & CSI