

Infineon Technologies AG

ESCCON 2019

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Radiation Hard PowerMOS Portfolio Qualified and in Production



250V Technology	ESCC Reference
BUY25CS12J-01	5205/026
BUY25CS54A-01	5205/027
BUY25CS12K-01	5205/030/01
BUY25CS45B-01	5205/030/03

150V Technology	ESCC Reference
BUY15CS23J-01	5205/031/01
BUY15CS57A-01	5205/031/02
BUY15CS23K-01	5205/031/03
BUY15CS45B-01	5205/031/04

Radiation-hardened:

- › Total Ionization Dose (TID) 100krad
- › Single Event Effect (SEE):
LET 85, Range: 118 μ m VGS = -10V,
VDS = 250V;
LET 55, Range: 90 μ m VGS = -15V,
VDS = 250V;

Radiation-hardened:

- › Total Ionization Dose TID 100krad
- › Single Event Effect (SEE):
LET 73, Range: 253 μ m VGS = -10V,
VDS = 150V;
LET 55, Range: 95 μ m VGS = -15V,
VDS = 150V;



ESA qualified Device!

Radiation Hard PowerMOS Products 60V N-Channel (under qualification)



Radiation-hardened:

- › Total Ionization Dose TID 100krad
- › Single Event Effect (SEE):
LET 62, Range: 73 μ m (Xe) VGS = -15V, VDS = 60V;
LET 95, Range: 86 μ m (Pb) VGS = -5V, VDS = 60V;
- › **Samples available!**
- › **ESCC qualification planned to finish in Q3 2019!**
- › **Datasheet and simulation Models on request.**



Samples available,
qualification started

Type	ESCC Reference	RDSon max; 25°C	IDC	Umax	Package	ESCC QPL
BUY06CS35J-01	Tbc.	35mOhm	35A	60V	SMD0.5	Q3/2019
BUY06CS80A-01	Tbc.	6mOhm	80A	60V	SMD2	Q3/2019
BUY06CS23K-01	Tbc.	35mOhm	23A	60V	TO257AA	Q3/2019
BUY06CS45B-01	Tbc.	15mOhm	45A	60V	TO254AA	Q3/2019



Radiation Hard PowerMOS Products 650V N-Channel (Upcoming)



Radiation-hardened:

- › Total Ionization Dose TID 100krad
- › Single Event Effect (SEE):
LET 62, Range: 73 μ m VGS = -15V, VDS = 650V;
LET 90, Range: 122 μ m (Pb) VGS = -10V, VDS = 650V
- › **Limited Samples available!**
- › **Evaluation build to be started soon!**
- › **Datasheet and simulation Models on request.**



Type	ESCC Reference	RDSon max; 25°C	IDC	Umax	Package	Infineon Qual FM
BUY65CS08J-01	Tbc.	450mOhm	8A	650V	SMD0.5	Q3/2019
BUY65CS28A-01	Tbc.	150mOhm	28A	650V	SMD2	Q4/2019



Radiation Hard PowerMOS

The Family is Complete



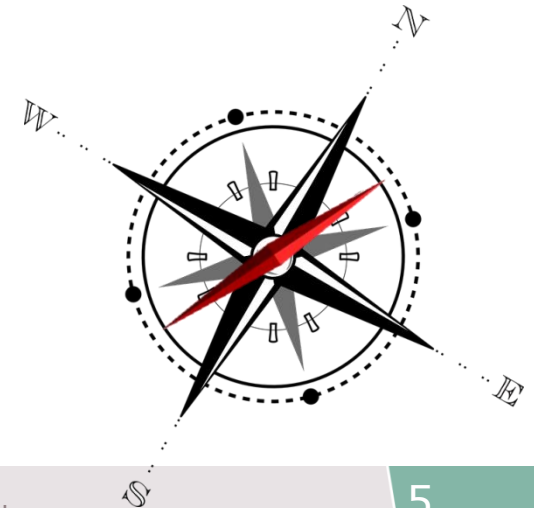
From the very first start of the development of RadHard PowerMOS at Infineon more than 10 years ago it was a long way to reach this milestone of a complete portfolio!

During this time we got a lot of support from, ESA, DLR but as well from users and customers!



Therefore we would like to say thank you!

**But a milestone is just way-mark
and not the end of the journey!**





Part of your life. Part of tomorrow.

