

Automotive MOSFETs

OptiMOS™ Families – Green and Robust

[www.infineon.com/automotivemosfet]



Infineon OptiMOS™ – Benchmark for Automotive MOSFETs



OptiMOS™ Products are Best in Class

OptiMOS™ superior performance is based on Infineon's leading MOSFET technology combined with the unsurpassed quality of robust package:

- Best in class $R_{DS(on)}$ performance for increased system efficiency
- Highest current DPAK + D²PAK on the market for reduced ECU module size
- Lowest switching and conduction power losses for increased thermal system reliability
- Robust green package for easy process handling

New OptiMOS™-T2 Product Family

New OptiMOS™-T2 trench technology is the benchmark for applications in energy efficiency, CO₂ reduction, electric drives, etc. The new OptiMOS™-T2 product family extends the existing families of OptiMOS™-T and OptiMOS™.

OptiMOS™ Robust Green Package

OptiMOS™ robust package is the benchmark for quality and reliability. Robust package sustains 260°C GREEN reflow processes at MSL1 combined with automotive qualification. No special handling or dry-pack is needed. All green packages are in compliance with RoHS/WEEE guidelines.

	Voltage Class [V]	OptiMOS™-T2 (Trench)	OptiMOS™-T (Trench)	OptiMOS™ (Planar)
Single MOSFET				
<i>NEW!</i>	N-Channel	30	•	•
<i>NEW!</i>	N-Channel	40	•	•
	N-Channel	55		•
<i>NEW!</i>	N-Channel	60	•	
	N-Channel	75		•
	N-Channel	100		•
<i>NEW!</i>	P-Channel	30 + 40	•	
Dual MOSFET				
<i>NEW!</i>	Dual N-Channel	2 x 55		•
	P+N-Channel	30 + 55	•	



Green and Robust Package

INFINEON GREEN AND ROBUST MOSFET PACKAGES are designed to comply with RoHS (Restriction of the use of Hazardous Substances Directive) and WEEE (Waste Electrical and Electronic Equipment) regulations requirements. Lead-free PCB solders require higher peak reflow temperatures combined with increased stress for the package compared to leaded solders.

To avoid any temperature overstress (e.g. delamination of mold compound and metallic contacts), Infineon Green and Robust MOSFET packages can sustain up to 260°C peak reflow temperatures and are fully backward compatible with existing leaded solder processes. This directly increased quality on system level of our customers.

Solder the attachment:

PbSnAg material

- to enable increased solder reflow peak temperature up to 260°C

Mold compound:

“Green,” without halogens and antimony III oxide

- to fulfill “green” material requirements

Pre-mold treatment:

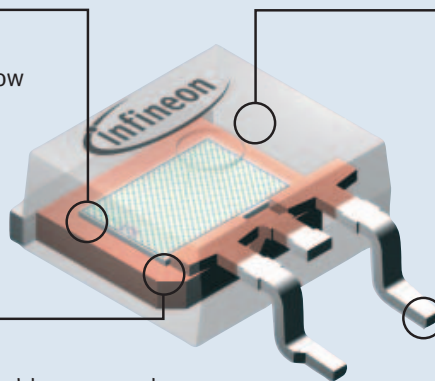
Adhesion promoter

- to provide strong adhesion of Mold compound to all interfaces, even at increased solder conditions

100% Sn lead finish:

“Green” lead finish

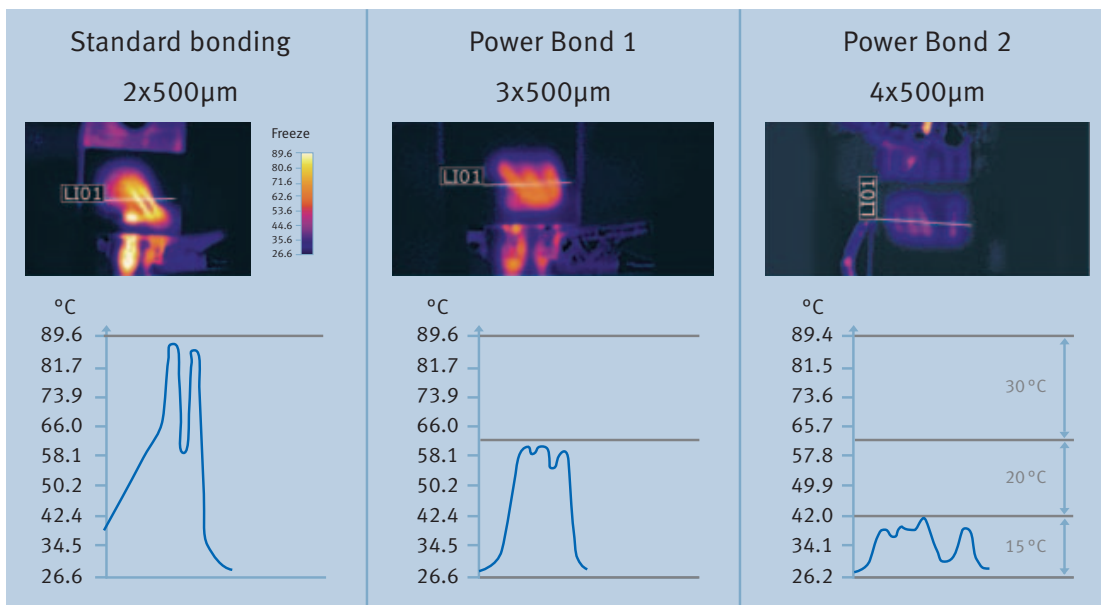
- to fulfill “green” material requirements



Power Bond Technology

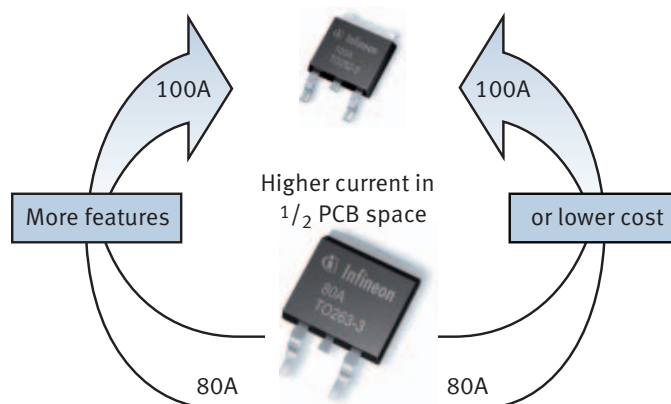
POWER BOND IS INFINEON'S HIGH-CURRENT wirebond technology. It addresses the bondwire limitation in a MOSFET's current rating.

Power Bond reduces the $R_{DS(on)}$ drop of the bondwires and increases the current capability. This also improves the reliability by keeping the wirebonds cooler, even with high currents.




Power Bond Technology allows up to four double-stitch 500µm wirebonds on a single OptiMOS™ device, which enables a current rating of upto 180A in a TO263-7 package. Power Bond Technology also increase current rating of a DPAK of upto 100A. Thus a standard 80A D²PAK can be replaced with a standard 100A DPAK plus 25% increase of output current.

DPAK replaces D²PAK



Package Integration – Dual Super SO8 Package

OptiMOS™ in Dual Super SO8

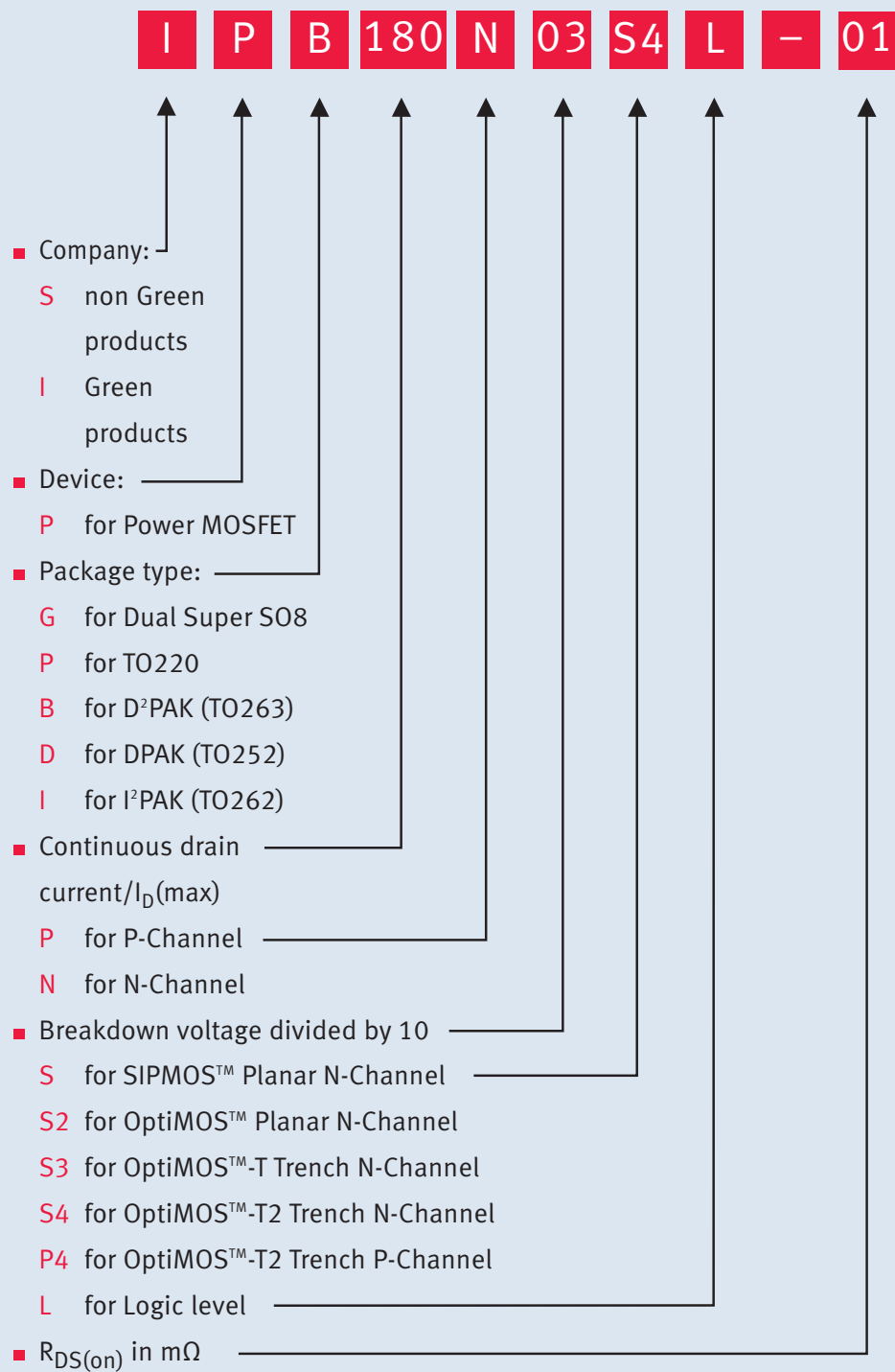
Dual OptiMOS™	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ/channel]	I_D [A]	R_{thJC} (max.) [K/W]	Package*
IPG20N06S2L-35	•	35	2 x 20	2.3	Ⓢ
IPG20N06S2L-50	•	50	2 x 20	2.9	Ⓢ
IPG20N06S2L-65	•	65	2 x 20	3.5	Ⓢ
IPG20N06S3L-23	•	23	2 x 20	3.3	Ⓢ
IPG20N06S3L-35	•	35	2 x 20	5	Ⓢ
IPG15N06S3L-45	•	45	2 x 15	7	Ⓢ

* See packages on page 15

About the Package


- Two N-Channel MOSFETs in one package with two isolated leadframes
- One Dual Super SO8 can replace two DPAKs reducing area from 130mm² to 32mm²
- 4x reduction in PCB area and 2x reduction in part count
- Dual Super SO8 can replace two existing OptiMOS™ DPAK products for system level cost reduction (significant PCB area savings)
- Dual Super SO8 has exposed pad heat sink and large source lead, thus provides higher current capabilities than a regular Dual SO8 and same R_{th} as DPAK with same chip.
- All Bond wire is 200μm thick for up to 20A current capability

Naming System




N-Channel MOSFETs 30V

OptiMOS™-T2 30V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	$R_{th(jc)}$ (max.) [K/W]	Package*
<i>NEW!</i> IPB180N03S4L-H0	●	0.9	180	0.6	⑤
<i>NEW!</i> IPB180N03S4L-01	●	1.05	180	0.8	⑤
IPD90N03S4L-02	●	2.2	90	1.1	③
IPD90N03S4L-03	●	3.0	90	1.6	③
IPD70N03S4L-04	●	4.3	70	2.2	③
IPD50N03S4L-06	●	5.5	50	2.7	③
IPD40N03S4L-08	●	8.3	40	3.6	③
IPD30N03S4L-09	●	9.0	30	3.6	③
IPD30N03S4L-14	●	13.6	30	4.9	③
IPP80N03S4L-03	●	2.7	80	1.1	①
IPP80N03S4L-04	●	3.6	80	1.6	①
IPP22N03S4L-15	●	14.9	22	4.9	①
IPI80N03S4L-03	●	2.7	80	1.1	②
IPI80N03S4L-04	●	3.6	80	1.8	②
IPI22N03S4L-15	●	14.9	22	4.9	②
IPB80N03S4L-02	●	2.4	80	1.1	④
IPB80N03S4L-03	●	3.3	80	1.6	④
IPB22N03S4L-15	●	14.6	22	4.9	④


OptiMOS™ 30V (Planar)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	$R_{th(jc)}$ (max.) [K/W]	Package*
IPD50N03S2L-06	●	6.4	50	1.1	③
IPD30N03S2L-07	●	6.7	30	1.1	③
IPD50N03S2-07	●	7.3	50	1.1	③
IPD30N03S2L-10	●	10.0	30	1.5	③
IPD30N03S2L-20	●	20.0	30	2.5	③

* See packages on page 15

N-Channel MOSFETs 40V


OptiMOS™-T2 40V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thJC} (max.) [K/W]	Package*
<i>NEW!</i> IPB180N04S4-00	●	1.0	180	0.5	⑤
<i>NEW!</i> IPB180N04S4-H0	●	1.1	180	0.6	⑤
<i>NEW!</i> IPB180N04S4-01	●	1.3	180	0.8	⑤
<i>NEW!</i> IPB120N04S4-01	●	1.5	120	0.8	④
<i>NEW!</i> IPB160N04S4-H1	●	1.6	160	0.9	⑤
<i>NEW!</i> IPB120N04S4-02	●	1.8	120	0.9	④
<i>NEW!</i> IPB90N04S4-02	●	2.1	90	1.0	④
<i>NEW!</i> IPB100N04S4-H2	●	2.4	100	1.3	④
<i>NEW!</i> IPB80N04S4-03	●	3.3	80	1.6	④
<i>NEW!</i> IPB80N04S4L-04	●	4.0	80	2.1	④
<i>NEW!</i> IPB80N04S4-04	●	4.2	80	2.1	④
<i>NEW!</i> IPB70N04S4-06	●	6.2	70	2.6	④
<i>NEW!</i> IPB45N04S4L-08	●	7.4	45	3.3	④
<i>NEW!</i> IPP/I120N04S4-01	●	1.8	120	0.8	①, ②
<i>NEW!</i> IPP/I120N04S4-02	●	2.1	120	0.9	①, ②
<i>NEW!</i> IPP/I90N04S4-02	●	2.4	90	1.0	①, ②
<i>NEW!</i> IPP/I100N04S4-H2	●	2.7	100	1.3	①, ②
<i>NEW!</i> IPP/I80N04S4-03	●	3.6	80	1.6	①, ②
<i>NEW!</i> IPP/I80N04S4L-04	●	4.3	80	2.1	①, ②
<i>NEW!</i> IPP/I80N04S4-04	●	4.5	80	2.1	①, ②
<i>NEW!</i> IPP/I70N04S4-06	●	6.6	70	2.6	①, ②
<i>NEW!</i> IPD100N04S4-02	●	2.0	100	1.0	③
<i>NEW!</i> IPD90N04S4-02	●	2.4	90	1.0	③
<i>NEW!</i> IPD90N04S4-03	●	3.1	90	1.6	③
<i>NEW!</i> IPD90N04S4L-04	●	3.8	90	2.1	③
<i>NEW!</i> IPD90N04S4-04	●	4.1	90	2.1	③
<i>NEW!</i> IPD90N04S4-05	●	5.2	90	2.3	③
<i>NEW!</i> IPD75N04S4-06	●	5.9	75	2.6	③
<i>NEW!</i> IPD50N04S4L-08	●	7.1	50	3.3	③
<i>NEW!</i> IPD50N04S4-08	●	7.6	50	3.3	③
<i>NEW!</i> IPD50N04S4-10	●	9.7	50	3.7	③


* See packages on page 15

N-Channel MOSFETs 40V

OptiMOS™-T 40V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_b [A]	R_{thjC} (max.) [K/W]	Package*
IPD90N04S3-04	●	3.6	90	1.1	③
IPD80N04S3-06	●	5.2	90	1.5	③
IPD70N04S3-07	●	6.0	82	1.9	③
IPD50N04S3-08	●	7.5	50	2.2	③
IPD50N04S3-09	●	9.0	50	2.4	③
IPD90N04S3-H4	●	4.3	90	1.3	③
IPP/I120N04S3-02	●	2.3	120	0.5	①, ②
IPP/I100N04S3-03	●	2.8	100	0.7	①, ②
IPP/I80N04S3-03	●	3.5	80	0.8	①, ②
IPP/I80N04S3-04	●	4.1	80	1.1	①, ②
IPP/I80N04S3-06	●	5.7	80	1.5	①, ②
IPP/I70N04S3-07	●	6.5	80	1.9	①, ②
IPP/I80N04S3-H4	●	4.8	80	1.3	①, ②
IPB180N04S3-02	●	1.5	180	0.5	⑤
IPB120N04S3-02	●	2.0	120	0.5	④
IPB160N04S3-H2	●	2.1	160	0.7	⑤
IPB100N04S3-03	●	2.5	100	0.7	④
IPB80N04S3-03	●	3.2	80	0.8	④
IPB80N04S3-04	●	3.8	80	1.1	④
IPB80N04S3-06	●	5.4	80	1.5	④
IPB70N04S3-07	●	6.2	80	1.9	④
IPB80N04S3-H4	●	4.5	80	1.3	④


OptiMOS™ 40V (Planar)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_b [A]	R_{thjC} (max.) [K/W]	Package*
IPP100N04S2L-03	●	3.3	100	0.5	①
IPP80N04S2L-03	●	3.4	80	0.5	①
IPP100N04S2-04	●	3.6	100	0.5	①
IPP/I80N04S2-04	●	3.7	80	0.5	①, ②
IPP/I80N04S2-H4	●	4.0	80	0.5	①, ②
IPB160N04S2L-03	●	2.7	160	0.5	④
IPB160N04S2-03	●	2.9	160	0.5	④
IPB100N04S2L-03	●	3.0	100	0.5	④
IPB80N04S2L-03	●	3.1	80	0.5	④
IPB100N04S2-04	●	3.3	100	0.5	④
IPB80N04S2-04	●	3.4	80	0.5	④
IPB80N04S2-H4	●	3.7	80	0.5	④

* See packages on page 15

N-Channel MOSFETs 55V


OptiMOS™ 55V (Planar)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	$R_{th(jc)}$ (max.) [K/W]	Package*
IPD50N06S2L-13	•	12.7	30	1.1	③
IPD30N06S2L-13	•	13.0	50	1.1	③
IPD50N06S2-14	•	14.4	50	1.1	③
IPD30N06S2-15	•	14.7	30	1.1	③
IPD30N06S2L-23	•	23.0	30	1.5	③
IPD30N06S2-23	•	23.0	30	1.5	③
IPD26N06S2L-35	•	35.0	26	2.2	③
IPD25N06S2-40	•	40.0	25	2.2	③
IPD15N06S2L-64	•	64.0	15	3.2	③
IPD14N06S2-80	•	80.0	14	3.2	③
IPP100N06S2L-05	•	4.7	100	0.5	①
IPP/I80N06S2L-05	•	4.8	80	0.5	①, ②
IPP100N06S2-05	•	5.0	100	0.5	①
IPP80N06S2-05	•	5.1	80	0.5	①
IPP80N06S2L-H5	•	5.3	80	0.5	①
IPP80N06S2-H5	•	5.5	80	0.5	①
IPP80N06S2L-06	•	6.3	80	0.6	①
IPP/I80N06S2-07	•	6.6	80	0.6	①, ②
IPP80N06S2L-07	•	7.0	80	0.7	①
IPP/I80N06S2-08	•	8.0	80	0.7	①, ②
IPP80N06S2L-09	•	8.5	80	0.8	①
IPP80N06S2-09	•	9.1	80	0.8	①
IPP80N06S2L-11	•	11.0	80	0.95	①
IPP77N06S2-12	•	12.0	77	0.95	①
IPB100N06S2L-05	•	4.4	100	0.5	④
IPB80N06S2L-05	•	4.5	80	0.5	④
IPB100N06S2-05	•	4.7	100	0.5	④
IPB80N06S2-05	•	4.8	80	0.5	④
IPB80N06S2L-H5	•	5.0	80	0.5	④
IPB80N06S2-H5	•	5.2	80	0.5	④
IPB80N06S2L-06	•	6.0	80	0.6	④
IPB80N06S2-07	•	6.3	80	0.6	④
IPB80N06S2L-07	•	7.0	80	0.7	④
IPB80N06S2-08	•	7.7	80	0.7	④
IPB80N06S2L-09	•	8.2	80	0.8	④
IPB80N06S2-09	•	8.8	80	0.8	④
IPB80N06S2L-11	•	10.7	80	0.95	④
IPB77N06S2-12	•	11.7	77	0.95	④
BSP603S2L	•	33.0	5.2	20.0	⑥

* See packages on page 15

N-Channel MOSFETs 60V


OptiMOS™-T2 60V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_b [A]	R_{thjC} (max.) [K/W]	Package*
<i>NEW!</i> IPB180N06S4-H1	●	1.7	180	0.60	⑤
<i>NEW!</i> IPB120N06S4-H1	●	2.1	120	0.60	④
<i>NEW!</i> IPB120N06S4-02	●	2.4	120	0.8	④
<i>NEW!</i> IPB120N06S4-03	●	2.8	120	0.9	④
<i>NEW!</i> IPB90N06S4-04	●	3.7	90	1.0	④
<i>NEW!</i> IPB90N06S4L-04	●	3.4	90	1.0	④
<i>NEW!</i> IPB80N06S4-05	●	5.4	80	1.4	④
<i>NEW!</i> IPB80N06S4-07	●	7.1	80	1.9	④
<i>NEW!</i> IPB45N06S4-09	●	9.1	45	2.1	④
<i>NEW!</i> IPB80N06S4L-05	●	4.8	80	1.4	④
<i>NEW!</i> IPB80N06S4L-07	●	6.4	80	1.9	④
<i>NEW!</i> IPB45N06S4L-08	●	7.9	45	2.1	④
<i>NEW!</i> IPP/I120N06S4-H1	●	2.4	120	0.6	①, ②
<i>NEW!</i> IPP/I120N06S4-02	●	2.8	120	0.8	①, ②
<i>NEW!</i> IPP/I120N06S4-03	●	3.1	120	0.9	①, ②
<i>NEW!</i> IPP/I90N06S4-04	●	4.0	90	1.0	①, ②
<i>NEW!</i> IPP/I90N06S4L-04	●	3.7	90	1.0	①, ②
<i>NEW!</i> IPP/I80N06S4-05	●	5.7	80	1.4	①, ②
<i>NEW!</i> IPP/I80N06S4-07	●	7.4	80	1.9	①, ②
<i>NEW!</i> IPP/I45N06S4-09	●	9.4	45	1.7	①, ②
<i>NEW!</i> IPP/I80N06S4L-05	●	5.1	80	1.4	①, ②
<i>NEW!</i> IPP/I80N06S4L-07	●	6.7	80	1.9	①, ②
<i>NEW!</i> IPP/I45N06S4L-08	●	8.2	45	2.1	①, ②
<i>NEW!</i> IPD90N06S4-04	●	3.8	90	1.0	③
<i>NEW!</i> IPD90N06S4L-03	●	3.5	90	1.0	③
<i>NEW!</i> IPD90N06S4-05	●	5.1	90	1.4	③
<i>NEW!</i> IPD90N06S4-07	●	6.9	90	1.9	③
<i>NEW!</i> IPD50N06S4-09	●	9.0	50	2.1	③
<i>NEW!</i> IPD90N06S4L-05	●	4.6	90	1.4	③
<i>NEW!</i> IPD90N06S4L-06	●	6.3	90	1.9	③
<i>NEW!</i> IPD50N06S4L-08	●	7.8	50	2.1	③
<i>NEW!</i> IPD50N06S4L-12	●	12.0	50	3.0	③
<i>NEW!</i> IPD30N06S4L-23	●	23.0	30	4.2	③
<i>NEW!</i> IPD25N06S4L-30	●	30.0	25	5.1	③


* See packages on page 15

N-Channel MOSFETs 75V and 100V

OptiMOS™ 75V (Planar)

Type		$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thJC} (max.) [K/W]	Package*
IPD30N08S2L-21	•	20.5	30	1.1	③
IPD30N08S2-22	•	21.5	30	1.1	③
IPD22N08S2L-50	•	50.0	22	2.0	③
IPP100N08S2L-07	•	6.8	100	0.5	①
IPP100N08S2-07	•	7.1	100	0.5	①
IPP80N08S2L-07	•	7.1	80	0.5	①
IPP80N08S2-07	•	7.4	80	0.5	①
IPB100N08S2L-07	•	6.5	100	0.5	④
IPB100N08S2-07	•	6.8	100	0.5	④
IPB80N08S2L-07	•	6.8	80	0.5	④
IPB80N08S2-07	•	7.1	80	0.5	④


OptiMOS™-T 100V (Trench)

Type		$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thJC} (max.) [K/W]	Package*
IPD70N10S3-12	•	11.1	70	1.2	③
IPD70N10S3L-12	•	11.5	70	1.2	③
IPD50N10S3L-16	•	15	50	1.5	③
IPD35N10S3L-26	•	24	35	2.1	③
IPD30N10S3L-34	•	31	30	2.6	③
IPP/I100N10S3-05	•	5.1	100	0.5	①, ②
IPP/I70N10S3-12	•	11.6	70	1.2	①, ②
IPP/I70N10S3L-12	•	12.1	70	1.2	①, ②
IPP/I50N10S3L-16	•	15.7	50	1.5	①, ②
IPB100N10S3-05	•	4.8	100	0.5	④
IPB70N10S3-12	•	11.3	70	1.2	④
IPB70N10S3L-12	•	11.8	70	1.2	④
IPB50N10S3L-16	•	15.4	50	1.5	④


* See packages on page 15

P-Channel MOSFETs 30V

OptiMOS™-T2 P-Channel 30V (Trench)

	Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_b [A]	R_{thjC} (max.) [K/W]	Package*
<i>NEW!</i>	IPD90P03P4L-04	●	4.1	90	1.1	③
<i>NEW!</i>	IPD80P03P4L-07	●	6.8	80	1.7	③
<i>NEW!</i>	IPD50P03P4L-11	●	10.5	50	2.6	③
<i>NEW!</i>	IPD90P03P4-04	●	4.5	90	1.1	③
<i>NEW!</i>	IPB80P03P4L-04	●	4.1	80	1.1	④
<i>NEW!</i>	IPB80P03P4L-07	●	6.9	80	1.7	④
<i>NEW!</i>	IPB45P03P4L-11	●	10.8	45	2.6	④
<i>NEW!</i>	IPB80P03P4-05	●	4.7	80	1.1	④
<i>NEW!</i>	IPP/I80P03P4L-04	●	4.4	80	1.1	①, ②
<i>NEW!</i>	IPP/I80P03P4L-07	●	7.2	80	1.7	①, ②
<i>NEW!</i>	IPP/I45P03P4L-11	●	11.1	45	2.6	①, ②
<i>NEW!</i>	IPP/I80P03P4-05	●	5.0	80	1.1	①, ②


OptiMOS™-T2 P-Channel 40V (Trench)

	Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_b [A]	R_{thjC} (max.) [K/W]	Package*
<i>NEW!</i>	IPD50P04P4L-11	●	11.1	50	2.6	③
<i>NEW!</i>	IPD70P04P4-09	●	9.3	70	2.0	③
<i>NEW!</i>	IPD90P04P4-05	●	4.8	90	1.1	③
<i>NEW!</i>	IPB70P04P4-09	●	9.4	70	2.0	④
<i>NEW!</i>	IPB80P04P4-05	●	4.9	80	1.1	④
<i>NEW!</i>	IPB180P04P4L-02	●	2.4	180	0.8	⑤
<i>NEW!</i>	IPP/IPI70P04P4-09	●	9.7	70	2.0	①, ②
<i>NEW!</i>	IPP/IPI80P04P4-05	●	5.2	80	1.1	①, ②


* See packages on page 15

Dual MOSFETs


Dual N-Channel OptiMOS™ 55V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thjC} (max.) [K/W]	Package*
IPG20N06S3L-23	•	2 x 23.0	20	3.3	⑧
IPG20N06S3L-35	•	2 x 35.0	20	5.0	⑧
IPG15N06S3L-45	•	2 x 45.0	15	7.0	⑧

Dual N-Channel OptiMOS™ 55V (Planar)

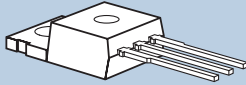
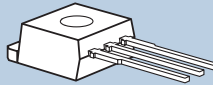

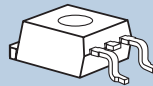
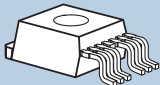


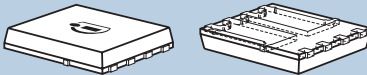
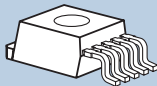
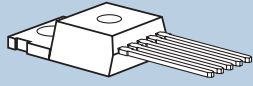
Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thjC} (max.) [K/W]	Package*
BSO604NS2	•	2 x 35.0	5	50.0	⑦
<i>NEW!</i> IPG20N06S2L-35	•	2 x 35.0	20	2.3	⑧
<i>NEW!</i> IPG20N06S2L-50	•	2 x 50.0	20	2.9	⑧
<i>NEW!</i> IPG20N06S2L-65	•	2 x 65.0	20	3.5	⑧

Dual N- + P-Channel OptiMOS™-T 30V + 55V (Trench)

Type	 Green	$R_{DS(on)}$ @ 10V (max.) [mΩ]	I_D [A]	R_{thjC} (max.) [K/W]	Package*
BTS 7904B	•	P-Channel 12.4 N-Channel 11.4	40	P-Channel 1.3 N-Channel 1.8	⑨
BTS 7904S	•	P-Channel 12.7 N-Channel 11.7	40	P-Channel 1.3 N-Channel 1.8	⑩

* See packages on page 15

Packages

<p>1 PG-TO220-3</p>  A perspective view of a TO220-3 package, which is a rectangular component with a circular top surface and three long, parallel pins extending from one side.	<p>2 PG-TO262-3 (I²PAK)</p>  A perspective view of an I ² PAK package, which is a rectangular component with a circular top surface and three long, parallel pins extending from one side, similar to TO220-3 but with a different pin configuration.
<p>3 PG-TO252-3 (DPAK)</p>  A perspective view of a DPAK package, which is a small, rectangular component with a circular top surface and three pins extending from one side.	<p>4 PG-TO263-3 (D²PAK)</p>  A perspective view of a D ² PAK package, which is a rectangular component with a circular top surface and three pins extending from one side.
<p>5 PG-TO263-7 (D²PAK 7pin)</p>  A perspective view of a D ² PAK 7pin package, which is a rectangular component with a circular top surface and seven pins extending from one side.	<p>6 PG-SOT-223</p>  A perspective view of an SOT-223 package, which is a small, rectangular component with a circular top surface and three pins extending from one side.
<p>7 PG-DSO-8</p>  A perspective view of a DSO-8 package, which is a small, rectangular component with a circular top surface and eight pins extending from one side.	<p>8 PG-TDSON-8 (Dual Super SO8)</p>  Two perspective views of a TDSON-8 package: one showing the top surface with a circular mark, and another showing the bottom surface with eight pins.
<p>9 PG-TO263-5 (TO220-5 (SMD))</p>  A perspective view of a TO220-5 (SMD) package, which is a rectangular component with a circular top surface and five pins extending from one side.	<p>10 PG-TO220-5</p>  A perspective view of a TO220-5 package, which is a rectangular component with a circular top surface and five long, parallel pins extending from one side.

INFINEON TECHNOLOGIES SALES OFFICES WORLDWIDE*

(COUNTRY/AREA)

Australia
Blackburn, Victoria 3130
☎ (+61) 3-88 78 01 88

Austria
1040 Vienna
☎ (+43) 5-17 77 11 11 1

9500 Villach
☎ (+43) 5-17 77 0

**Belgium/Luxembourg/
Netherlands**
2018 Antwerp
☎ (+31) 10-21 76 80 0

Brazil
01311-200 São Paulo
☎ (+55) 11-33 72 92 42

China
Beijing 100083
☎ (+86) 10-82 35 61 18

Hong Kong
☎ (+852) 28-32 05 00

Shanghai 201203
☎ (+86) 21-61 01 90 00

Finland
02601 Espoo
☎ (+358) 10-6 80 84 00

France
13400 Aubagne
☎ (+33) 44-28 24 61 0

31700 Blagnac
☎ (+33) 5-34 55 13 30

93527 Saint-Denis CEDEX 2
☎ (+33) 1-48 09 72 00

Germany
90449 Nuremberg
☎ (+49) 911-37 88 0

76229 Karlsruhe
☎ (+49) 72-19 62 80

71254 Ditzingen/Stuttgart
☎ (+49) 7156-17 91 90

47259 Duisburg
☎ (+49) 203-72 98 71 1

91052 Erlangen
☎ (+49) 9131-97 00 10

30539 Hannover
☎ (+49) 511-87 65 62 0

85579 Neubiberg
☎ (+49) 89-23 40

90449 Nuremberg
☎ (+49) 911-25 29 30

59581 Warstein
☎ (+49) 2902-76 40

India
Bangalore 560 066
☎ (+91) 80-41 39 23 01

Ireland
Dublin 2
☎ (+353) 1-79 99 50 0

Italy
20128 Milan
☎ (+39) 2-25 20 41

Japan
Aichi 460-0003
☎ (+81) 52-22 31 57 0

Osaka 530-0003
☎ (+81) 6-47 97 44 60

Chiba 289-1603
☎ (+81) 479-70-92 31

Tokyo 141-0032
☎ (+81) 3-57 45 71 00

Korea
Seoul 153-801
☎ (+82) 2-34 60 09 00

Russia
117 198 Moscow
☎ (+7) 495-95 65 19 5

Singapore
Singapore 349 282
☎ (+65) 68-40 08 88

Sweden
16481 Kista
☎ (+46) 8-75 75 00 0

Switzerland
8048 Zurich
☎ (+41) 1-49 78 04 0

Taiwan
Taipei 115
☎ (+886) 2-26 55 75 00

United Kingdom
Bristol BS34 8HP
☎ (+44) 11-79 52 87 13 0

U.S.A.
Kokomo, IN 46902
☎ (+1) 765-45 61 92 8

Lebanon, NJ 08833
☎ (+1) 908-23 65 62 1

Libertyville, IL 60048
☎ (+1) 847-99 60 48 0

Livonia, MI 48152
☎ (+1) 734-77 95 00 0

Milpitas, CA 95035
☎ (+1) 866-95 19 51 9

San Diego, CA 92130
☎ (+1) 858-50 92 16 0

* and representative offices

Infineon Technologies – innovative semiconductor solutions
for energy efficiency, communications and security.

[www.infineon.com]