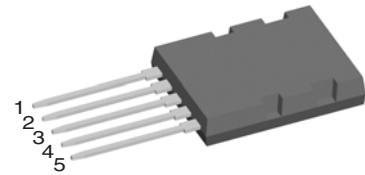
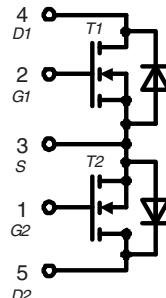


Dual CoolMOS™¹⁾ Power MOSFET

Common Source Topology
DCB isolated package

V_{DSS} = 600 V
I_{D25} = 47 A
R_{DS(on) max} = 45 mΩ/MOSFET



MOSFET T1/T2

Symbol	Conditions	Maximum Ratings		
V _{DSS}	T _{VJ} = 25°C	600	V	
V _{D1D2}	T _{VJ} = 25°C	±600	V	
V _{GS}		±20	V	
I _{D25}	T _C = 25°C	47	A	
I _{D90}	T _C = 90°C	32	A	
E _{AS}	single pulse	1950	mJ	
E _{AR}	repetitive } I _D = 11 A; T _C = 25°C	3	mJ	

Symbol	Conditions	Characteristic Values		
		(T _{VJ} = 25°C, unless otherwise specified)		
		min.	typ.	max.
R _{DSon}	V _{GS} = 10 V; I _D = 44 A	40	45	mΩ
R _{DSon}	total between D1 and D2 V _{G1S} = V _{G2S} = 10 V; I _D = 44 A	80		mΩ
V _{GSth}	V _{DS} = V _{GS} ; I _D = 3 mA	2.5	3	3.5 V
I _{DSS}	V _{DS} = V _{DSS} ; V _{GS} = 0 V; T _{VJ} = 25°C T _{VJ} = 125°C	50	10	μA
I _{GSS}	V _{GS} = ±20 V; V _{DS} = 0 V		100	nA
C _{iss} C _{oss}	} V _{GS} = 0 V; V _{DS} = 100 V f = 1 MHz	6800 320		pF
Q _g Q _{gs} Q _{gd}	} V _{GS} = 0 to 10 V; V _{DS} = 400 V; I _D = 44 A	150 35 50	190	nC
t _{d(on)} t _r t _{d(off)} t _f	} V _{GS} = 10 V; V _{DS} = 400 V; I _D = 44 A; R _G = 3.3 Ω	30 20 100 10		ns
R _{thJC} R _{thCH}	with heatsink compound	0.25	0.45	K/W

¹⁾CoolMOS™ is a trademark of Infineon Technologies AG.

Source-Drain Diode

Characteristic Values

(T_J = 25°C, unless otherwise specified)

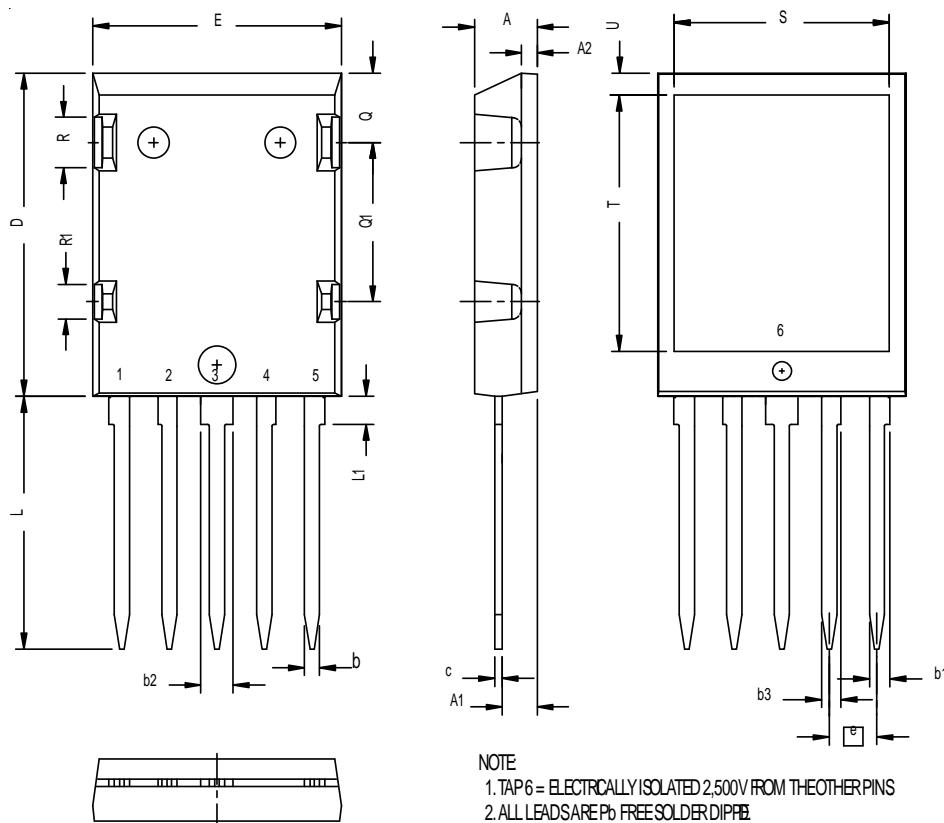
		min.	typ.	max.
I _s	V _{GS} = 0 V		44	A
V _{SD}	I _F = 44 A; V _{GS} = 0 V	0.9	1.2	V
t _{rr} Q _{RM} I _{RM}	I _F = 44 A; -di/dt = 100 A/μs; V _R = 400 V	600 17 60	ns μC A	

Component

Symbol	Conditions	Maximum Ratings		
T _{VJ}		-55...+150	°C	
T _{stg}		-55...+150	°C	
V _{ISOL}	I _{ISOL} ≤ 1 mA; 50/60 Hz; t = 1 min	2500	V~	
F _c	Mounting force with clip	40 - 180	N	

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
C _p	coupling capacity between shorted pins and mounting tab in the case	50		pF
d _s , d _A d _s , d _A	pin - pin pin - backside metal	tbd tbd		mm mm
Weight		10		g

ISOPLUS264



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.190	.205	4.83	5.21
A1	.102	.118	2.59	3.00
A2	.046	.055	1.17	1.40
b	.045	.055	1.14	1.40
b1	.063	.072	1.60	1.85
b2	.100	.110	2.54	2.78
b3	.058	.068	1.47	1.73
c	.020	.029	0.51	0.74
D	1.020	1.040	25.91	26.42
E	.770	.799	19.56	20.29
ε	.150 BSC		3.81 BSC	
L	.780	.820	19.81	20.83
L1	.080	.102	2.03	2.59
Q	.210	.235	5.33	5.97
Q1	.490	.513	12.46	13.03
R	.150	.180	3.81	4.57
R1	.100	.130	2.54	3.30
S	.068	.090	16.97	17.53
T	.801	.821	20.34	20.85
U	.065	.080	1.65	2.03

All curves for single MOSFET T1 or T2 only

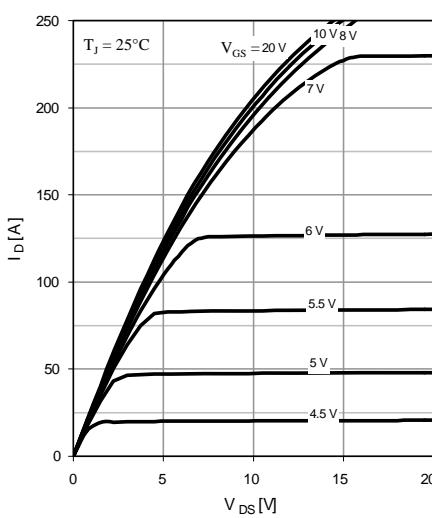


Fig. 1 Typ. output characteristics

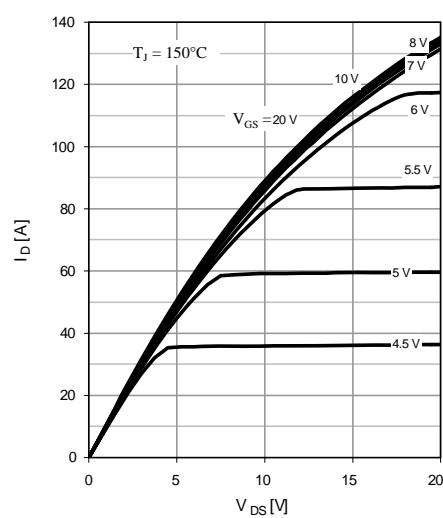


Fig. 2 Typ. output characteristics

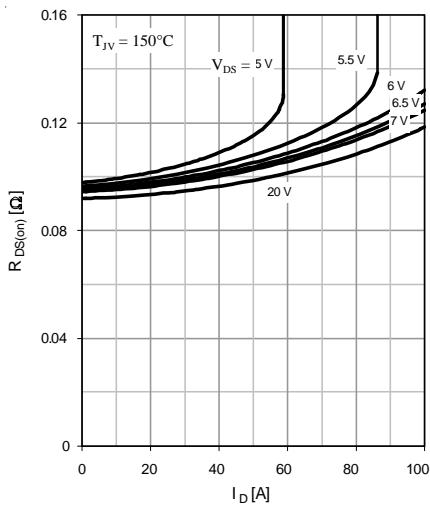


Fig. 3 Typ. drain-source on-state resistance

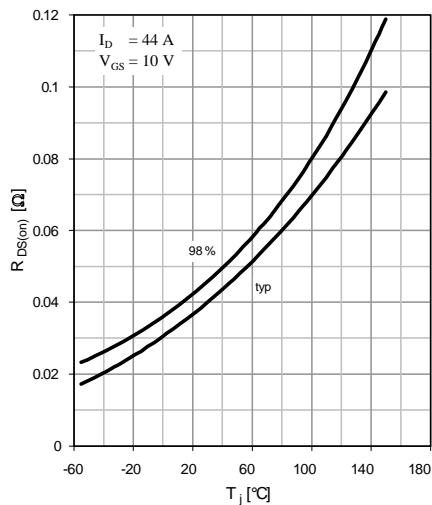


Fig. 4 Drain-source on-state resistance

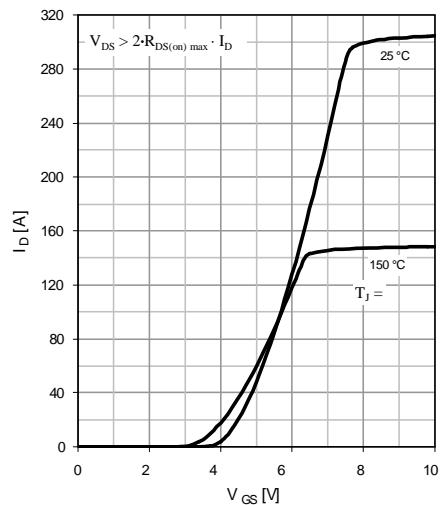


Fig. 5 Typ. transfer characteristics

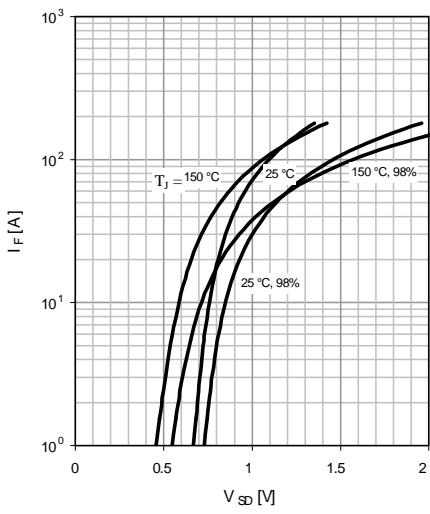


Fig. 6 Forward characteristic of reverse diode

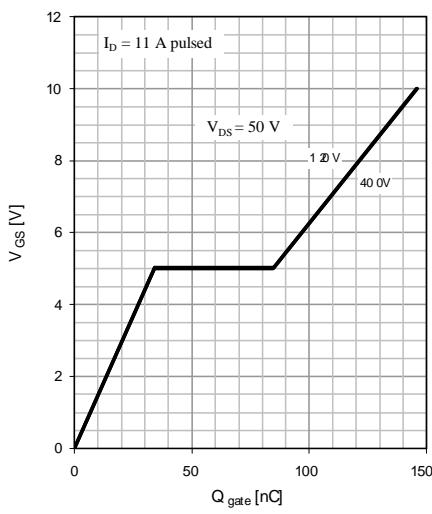


Fig. 7 Typ. gate charge

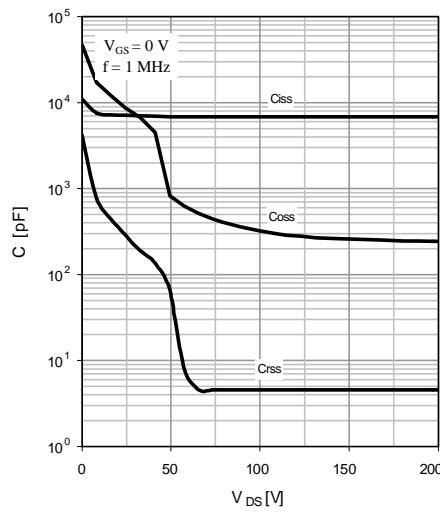


Fig. 8 Typ. capacitances

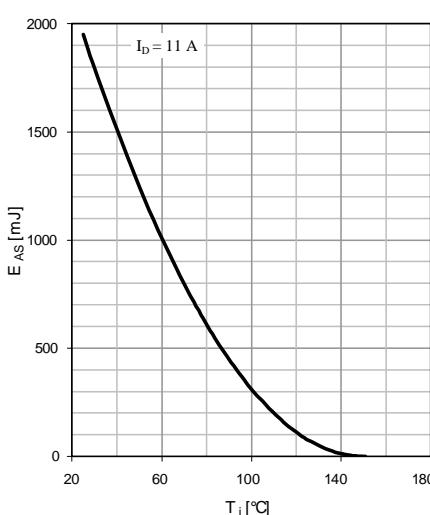


Fig. 9 Avalanche energy

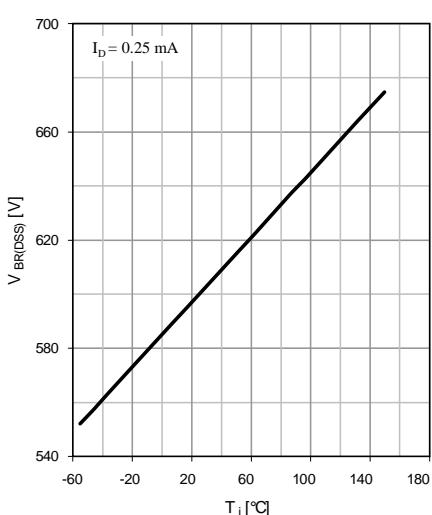


Fig. 10 Drain-source breakdown voltage



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