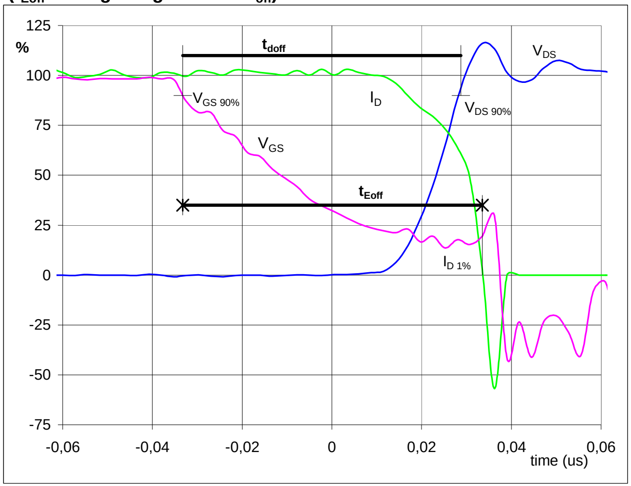
Switching Definition BOOST MOSFET

General conditions

T_j	=	150 °C
R_{gon}	=	4 Ω
R_{goff}	=	4 Ω

Figure 1 BOOST MOSFET

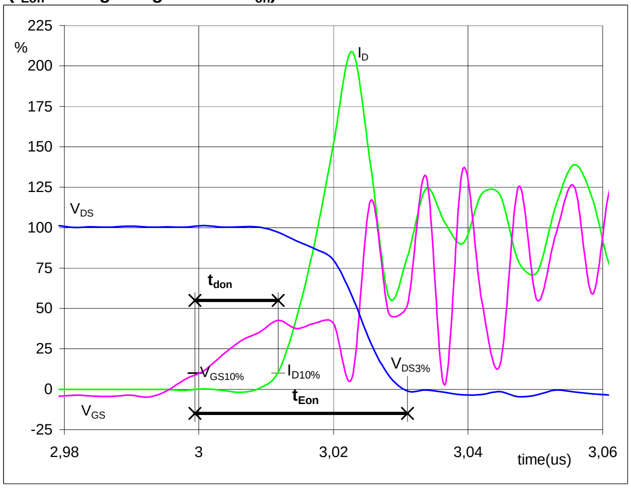
Turn-off Switching Waveforms & definition of t_{doff}, t_{Eoff}
(t_{Eoff} = integrating time for E_{off})



V_{GS} (0%) =	-15	V
V_{GS} (100%) =	16	V
V_D (100%) =	350	V
I_D (100%) =	32	A
t_{doff} =	0,06	μs
t_{Eoff} =	0,07	μs

Figure 2 BOOST MOSFET

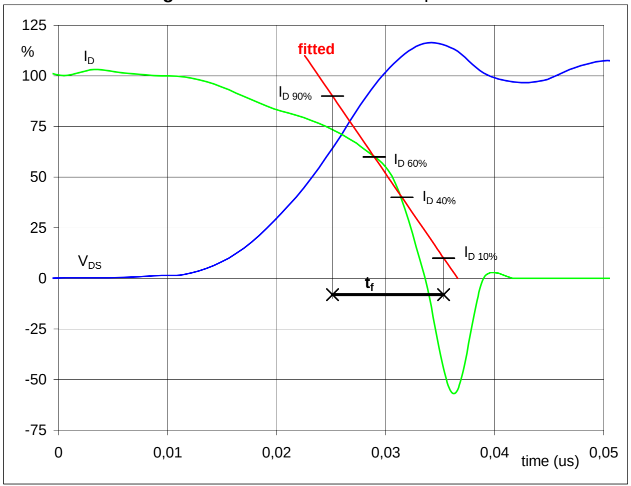
Turn-on Switching Waveforms & definition of t_{don}, t_{Eon}
(t_{Eon} = integrating time for E_{on})



V_{GS} (0%) =	-15	V
V_{GS} (100%) =	16	V
V_D (100%) =	350	V
I_D (100%) =	32	A
t_{don} =	0,01	μs
t_{Eon} =	0,03	μs

Figure 3 BOOST MOSFET

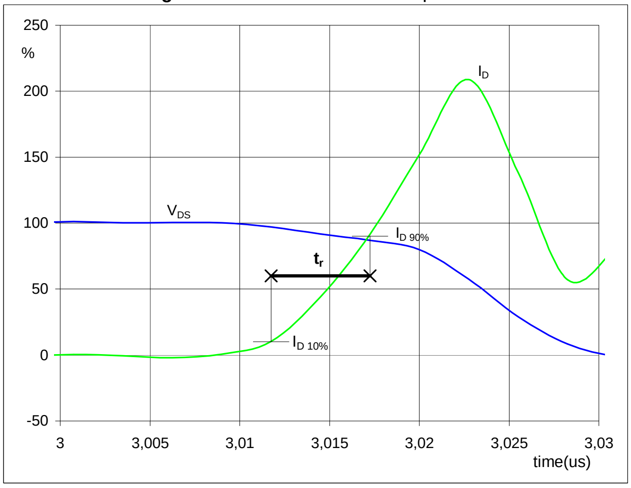
Turn-off Switching Waveforms & definition of t_f



V_D (100%) =	350	V
I_D (100%) =	32	A
t_f =	0,01	μs

Figure 4 BOOST MOSFET

Turn-on Switching Waveforms & definition of t_r

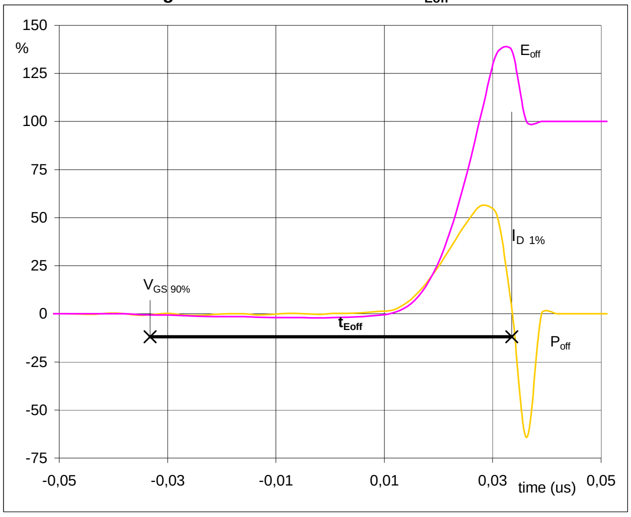


V_D (100%) =	350	V
I_D (100%) =	32	A
t_r =	0,005	μs

Switching Definition BOOST MOSFET

Figure 5 BOOST MOSFET

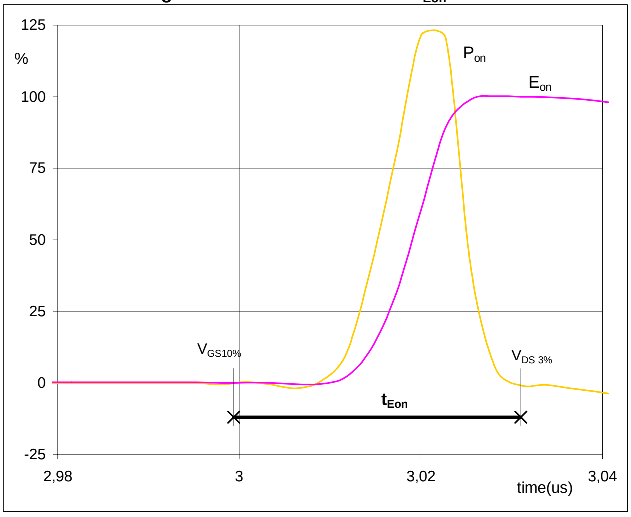
Turn-off Switching Waveforms & definition of t_{Eoff}



P_{off} (100%) =	11,26	kW
E_{off} (100%) =	0,14	mJ
t_{Eoff} =	0,067	μs

Figure 6 BOOST MOSFET

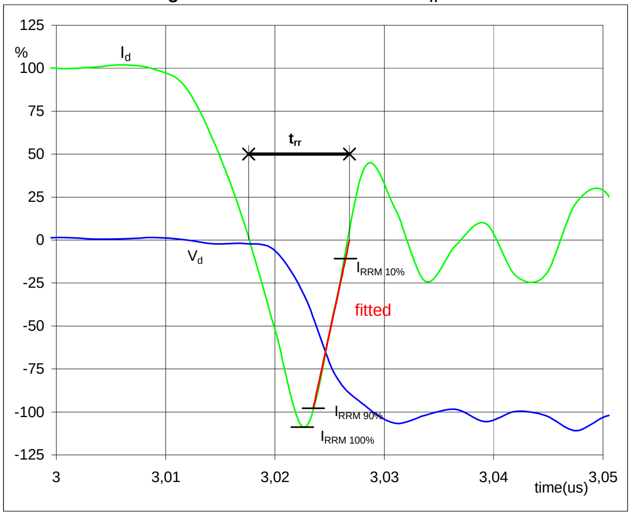
Turn-on Switching Waveforms & definition of t_{Eon}



P_{on} (100%) =	11,26	kW
E_{on} (100%) =	0,24	mJ
t_{Eon} =	0,03	μs

Figure 7 BOOST FWD

Turn-off Switching Waveforms & definition of t_{rr}

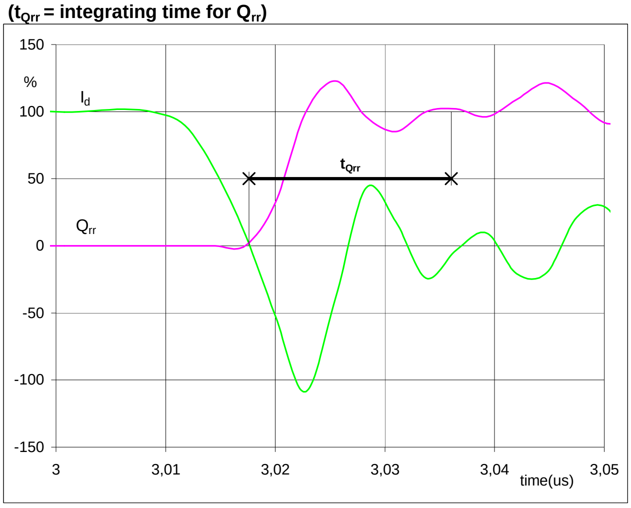


V_d (100%) =	350	V
I_d (100%) =	32	A
I_{RRM} (100%) =	10	A
t_{rr} =	0,009	μs

Switching Definition BOOST MOSFET

Figure 8	BOOST FWD

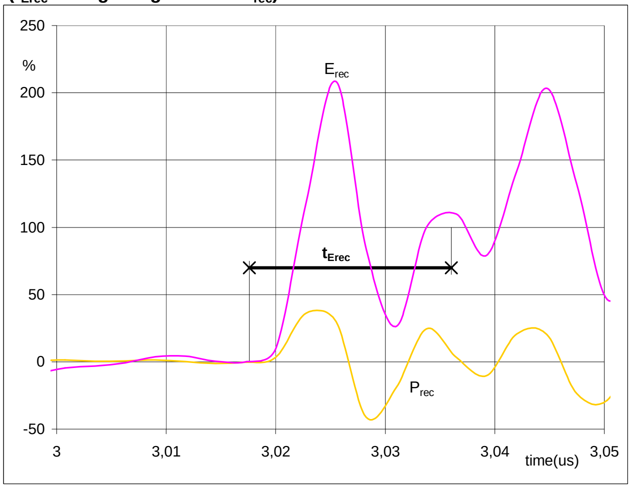
Turn-on Switching Waveforms & definition of t_{Qrr}
(t_{Qrr} = integrating time for Q_{rr})



I_d (100%) =	32	A
Q_{rr} (100%) =	0,15	µC
t_{Qrr} =	0,02	µs

Figure 9	BOOST FWD

Turn-on Switching Waveforms & definition of t_{Erec}
(t_{Erec}= integrating time for E_{rec})



P_{rec} (100%) =	11,26	kW
E_{rec} (100%) =	0,02	mJ
t_{Erec} =	0,02	µs

Ordering Code and Marking - Outline - Pinout

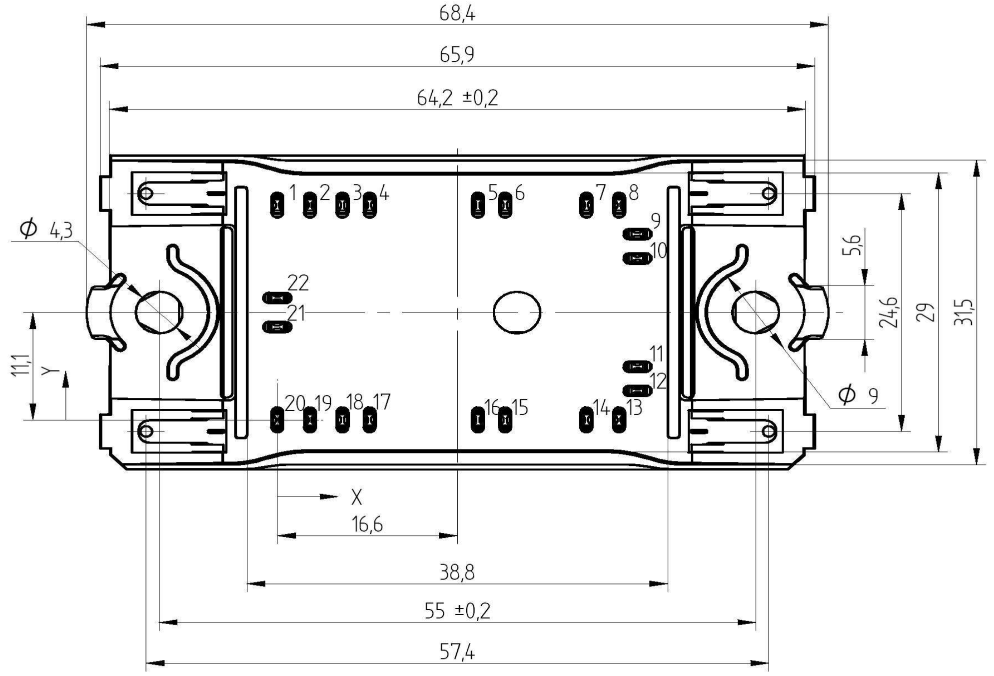
Ordering Code & Marking

Version	Ordering Code	in DataMatrix as	in packaging barcode as
without thermal paste 12mm housing	10-PZ12B2A040ME01-M330L63Y	M330L63Y	M330L63Y

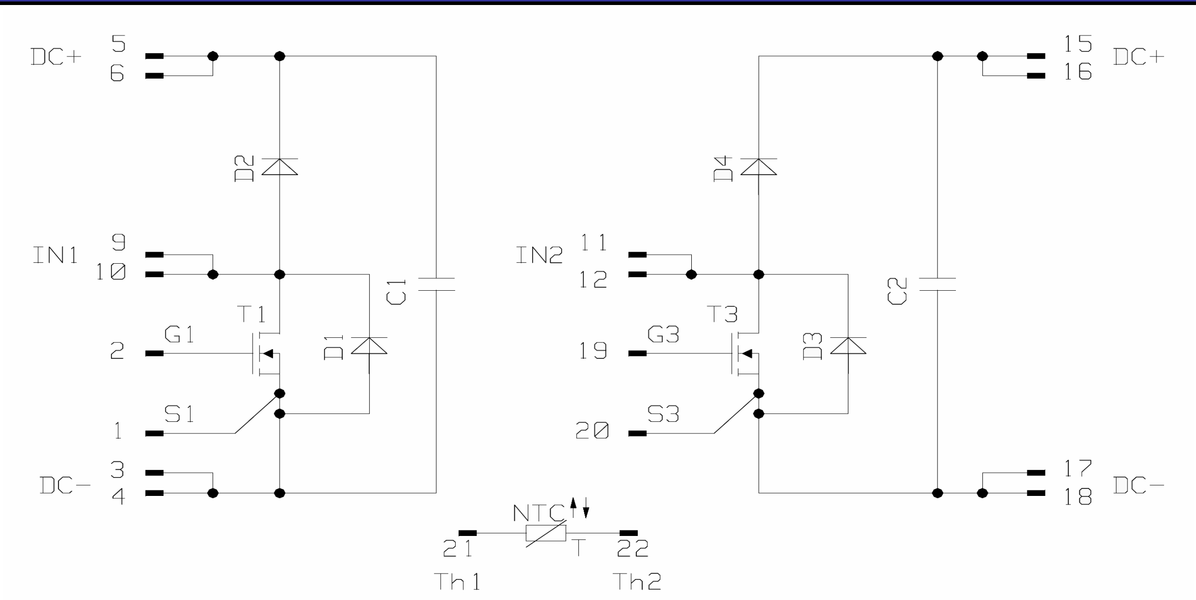
Outline

Pin table

Pin	X	Y
1	0	22,2
2	3	22,2
3	6	22,2
4	8,5	22,2
5	18,5	22,2
6	21	22,2
7	28,5	22,2
8	31,5	22,2
9	33,2	19,2
10	33,2	16,7
11	33,2	5,5
12	33,2	3
13	31,5	0
14	28,5	0
15	21	0
16	18,5	0
17	8,5	0
18	6	0
19	3	0
20	0	0
21	0	9,6
22	0	12,6



Pinout



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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.