



650V SuperJunction Power MOSFET

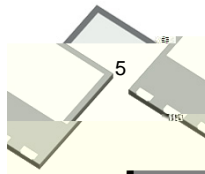
Features

Product Summary

Parameter	Value	Unit
V_{DS}	650	V
$V_{GS(th_Typ)}$	3.5	V
I_D (@ $V_{GS} = 10V$) ⁽¹⁾	4.0	A
$R_{DS(ON_Typ)}$ (@ $V_{GS} = 10V$)	890	m
$E_{oss@400V}$	0.68	J

Applications

- Telecom / Server Power Supplies
- Industrial Power Supplies
- UPS / Solar
- Lighting / Charger / Adapter



Ordering Information

Device	Package	# of Pins	Marking	MSL	T_J (°C)	Media	Quantity (pcs)
JMH65R980APLN-13	DFN8080-4L	4	H65R980A	1	-55 to 150	13-inch Reel	3000

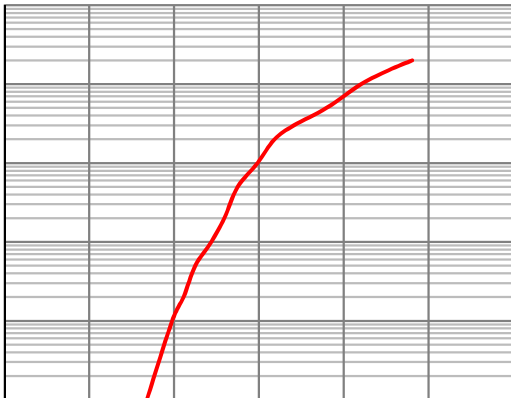
Absolute Maximum Ratings (@ $T_A = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DS}	650	V
Gate-to-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ⁽¹⁾	I_D	$T_C = 25^\circ C$	4.0
		$T_C = 100^\circ C$	2.4
Pulsed Drain Current ⁽²⁾	I_{DM}	16.0	A
Avalanche Current ⁽³⁾	I_{AS}	4.0	A
Avalanche Energy ⁽³⁾	E_{AS}	80	mJ
Power Dissipation ⁽⁴⁾	P_D	$T_C = 25^\circ C$	37
		$T_C = 100^\circ C$	14.7
Junction & Storage Temperature Range	T_{J_STG}	-55 to 150	°C

			$I_D = 2.0A$

	Symbol	Min.	Typ.	Max.	Unit
Gate Threshold Voltage	$V_{(BR)DSS}$	650			V
	I_{DSS}			1.0	
	I_{GSS}			±100	nA
	$V_{GS(th)}$	2.5	3.5	4.5	V
	$R_{DS(ON)}$		890	980	m
	V_{SD}		0.75		V
	I_S				

Typical Electrical & Thermal Characteristics





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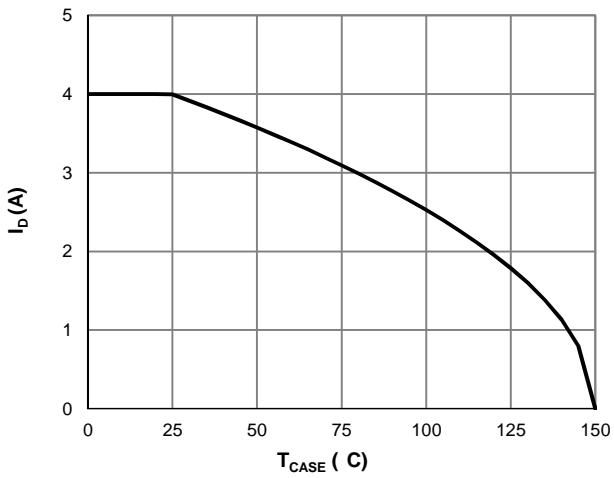


Figure 7: Current De-rating

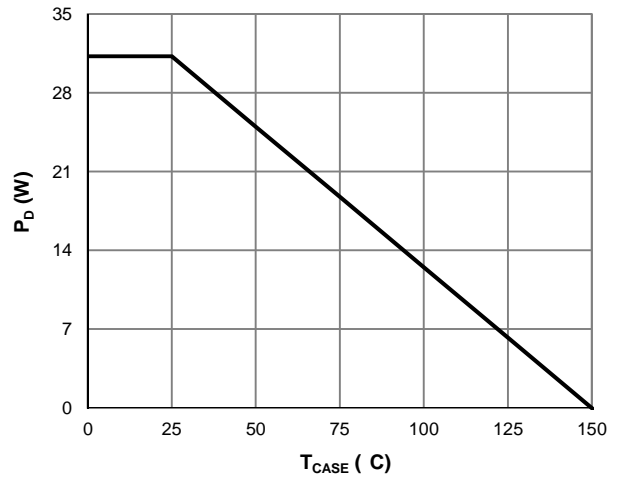


Figure 8: Power De-rating

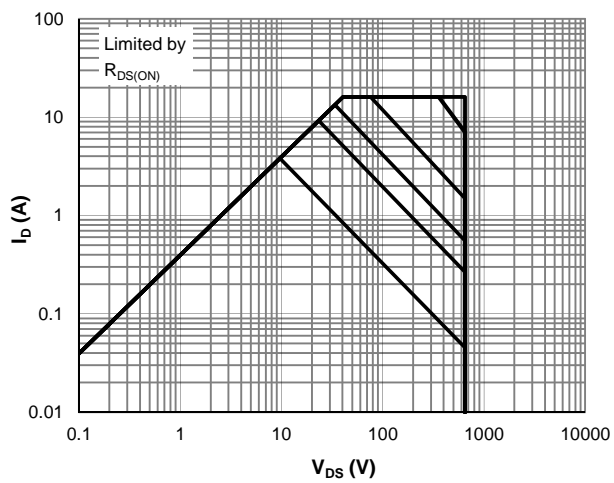
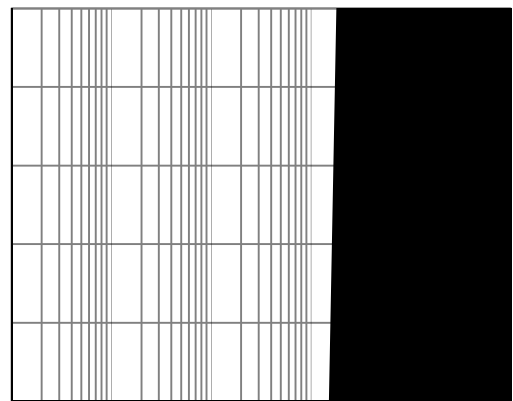
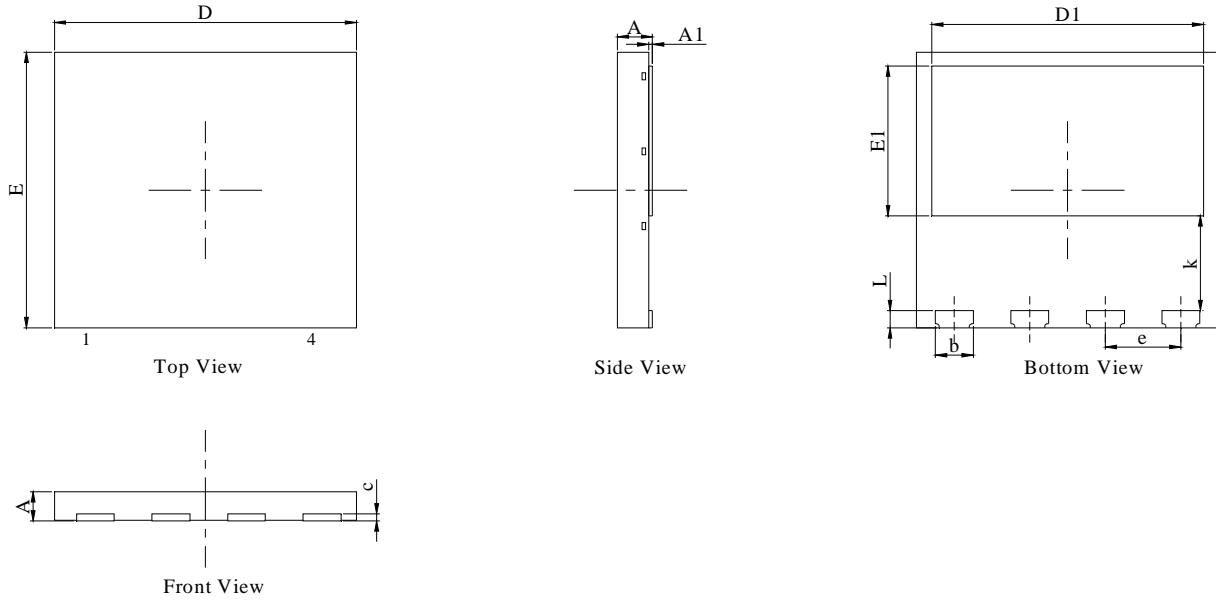


Figure 9: Maximum Safe Operating Area





DFN8080-4L Package Information



DIM.	MILLIMETER		
	MIN.	NOM.	MAX.
A	0.85	0.90	0.95
A1	--	--	0.05
b	0.95	1.00	1.05
c	--	0.20	--
D	7.90	8.00	8.10
D1	7.10	7.20	7.30
E	7.90	8.00	8.10
E1	4.25	4.35	4.45
L	0.40	0.50	0.60
k	2.75		
Y	2.00 BSC		

