

GENERAL FEATURES

- $V_{DS} = -20V$
- $R_{DS(on)} = 68m\Omega @ V_{GS} = -1.8V, I_D = -2A$
- $R_{DS(on)} = 52m\Omega @ V_{GS} = -2.5V, I_D = -4.1A$
- $R_{DS(on)} = 39m\Omega @ V_{GS} = -4.5V, I_D = -4.7A$

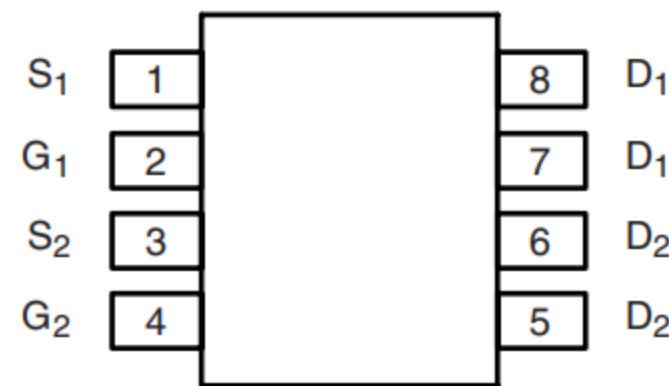
Application

- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

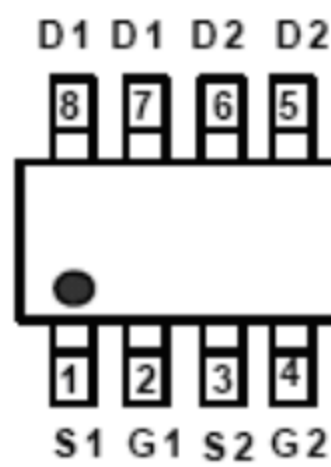
Package and Pin Configuration



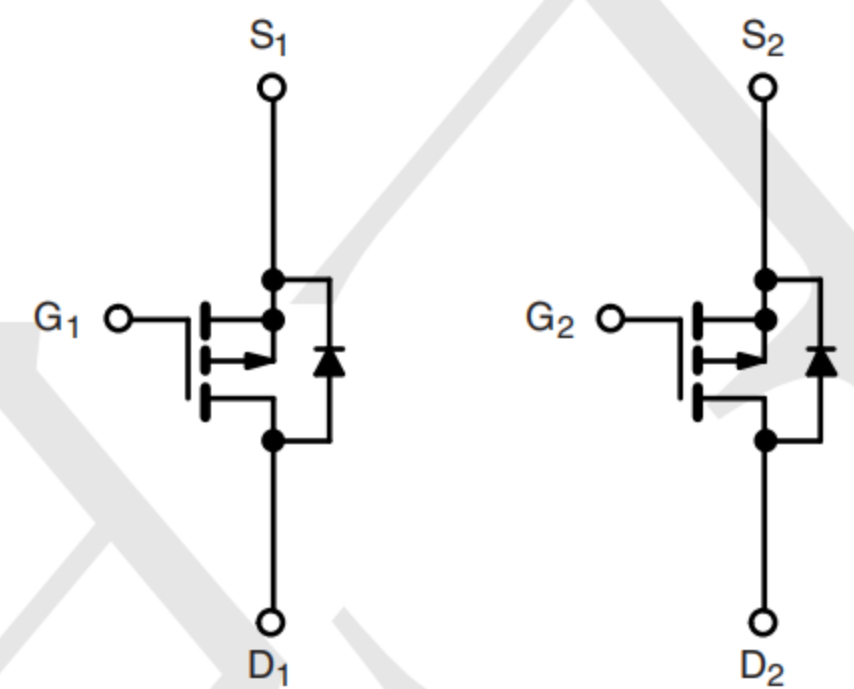
SOP-8 top view



Marking:



Circuit diagram



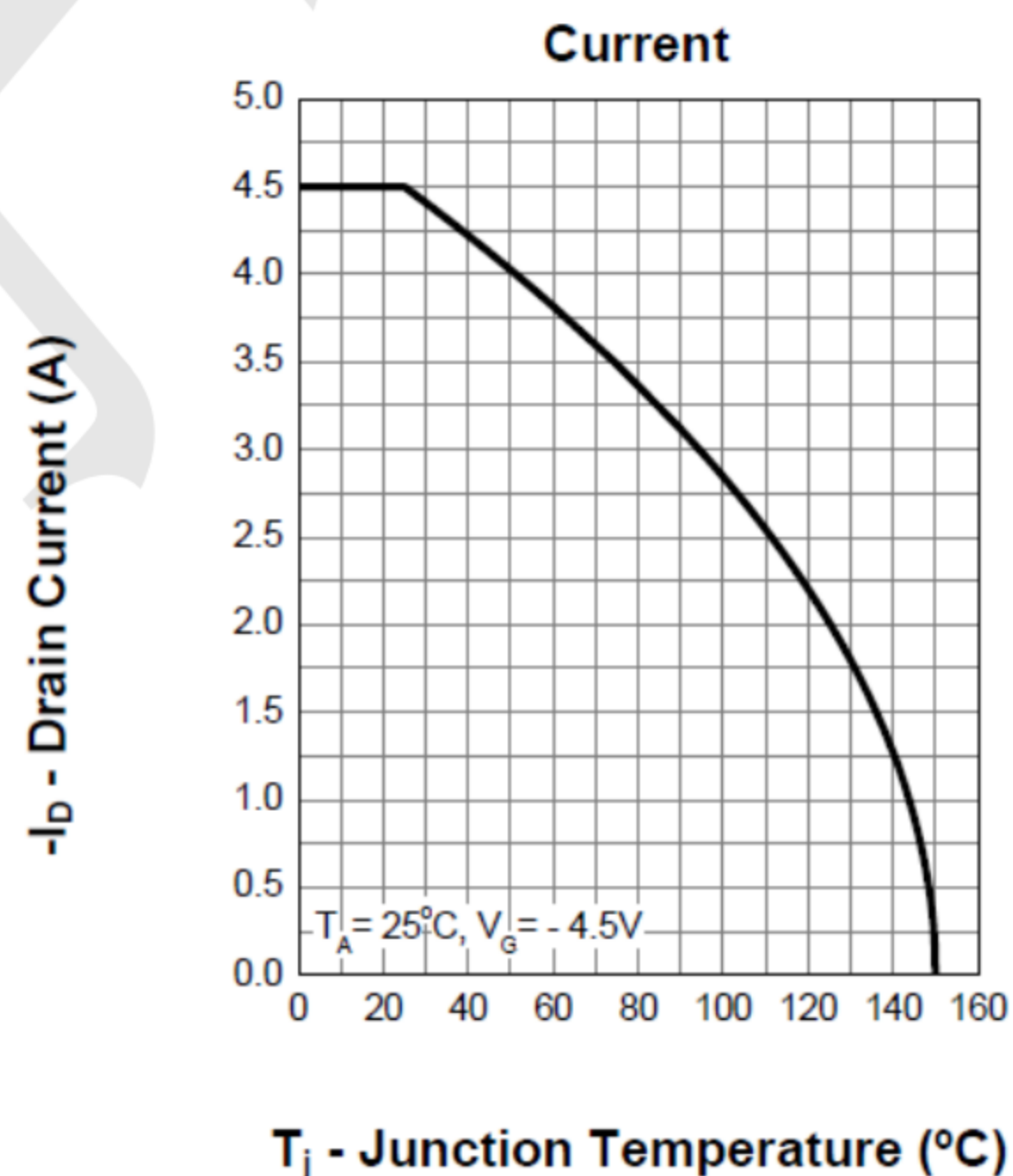
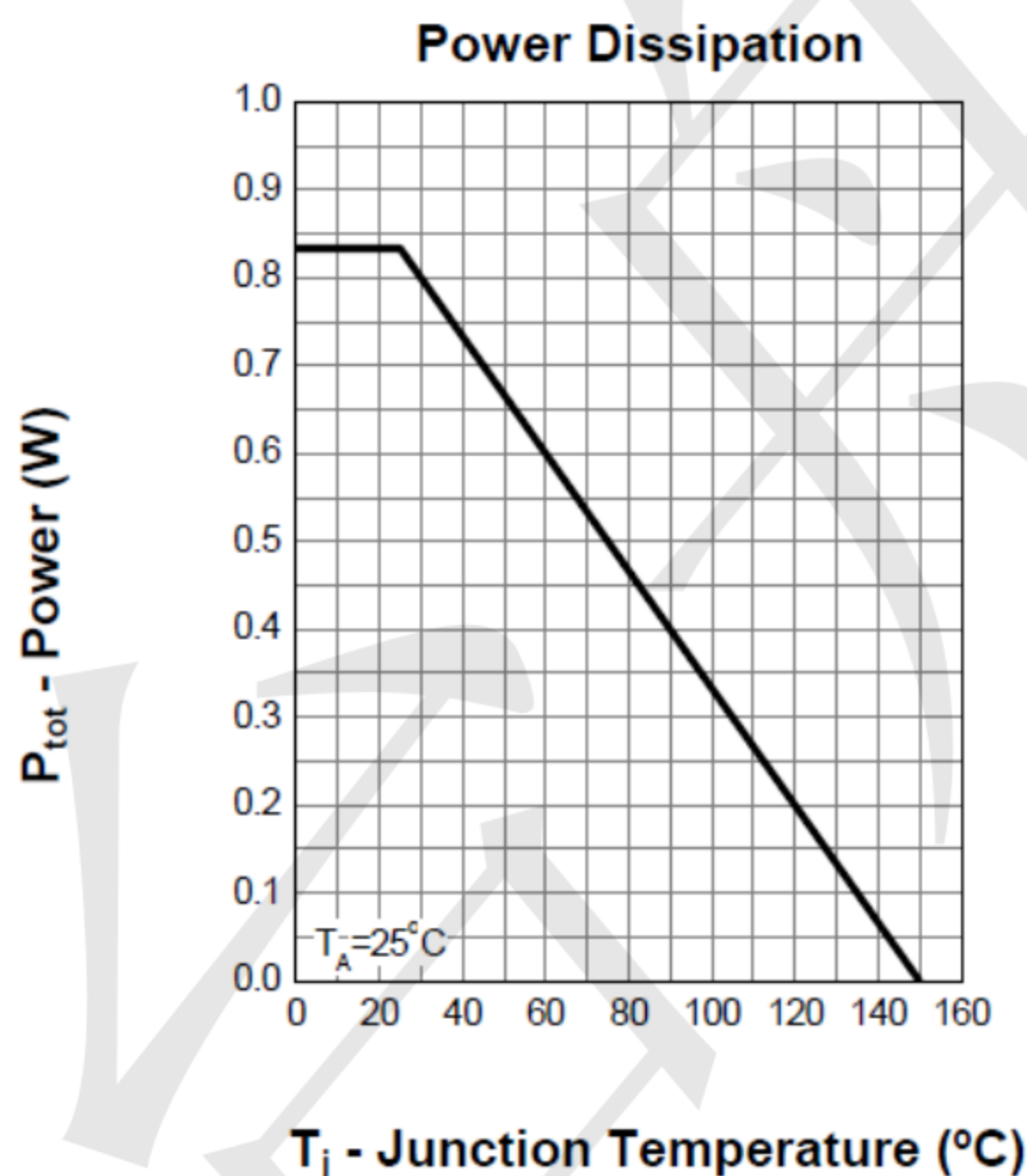
Absolute Maximum Ratings ($T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Rating	Units
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current (Note 1)	Continuous	-4.7	A
	Pulsed	-20	
Total Power Dissipation	@ $T_A = 25^\circ C$	1.25	W
	@ $T_A = 75^\circ C$	0.8	
Operating Junction Temperature Range	T_J	-55 to 150	$^\circ C$

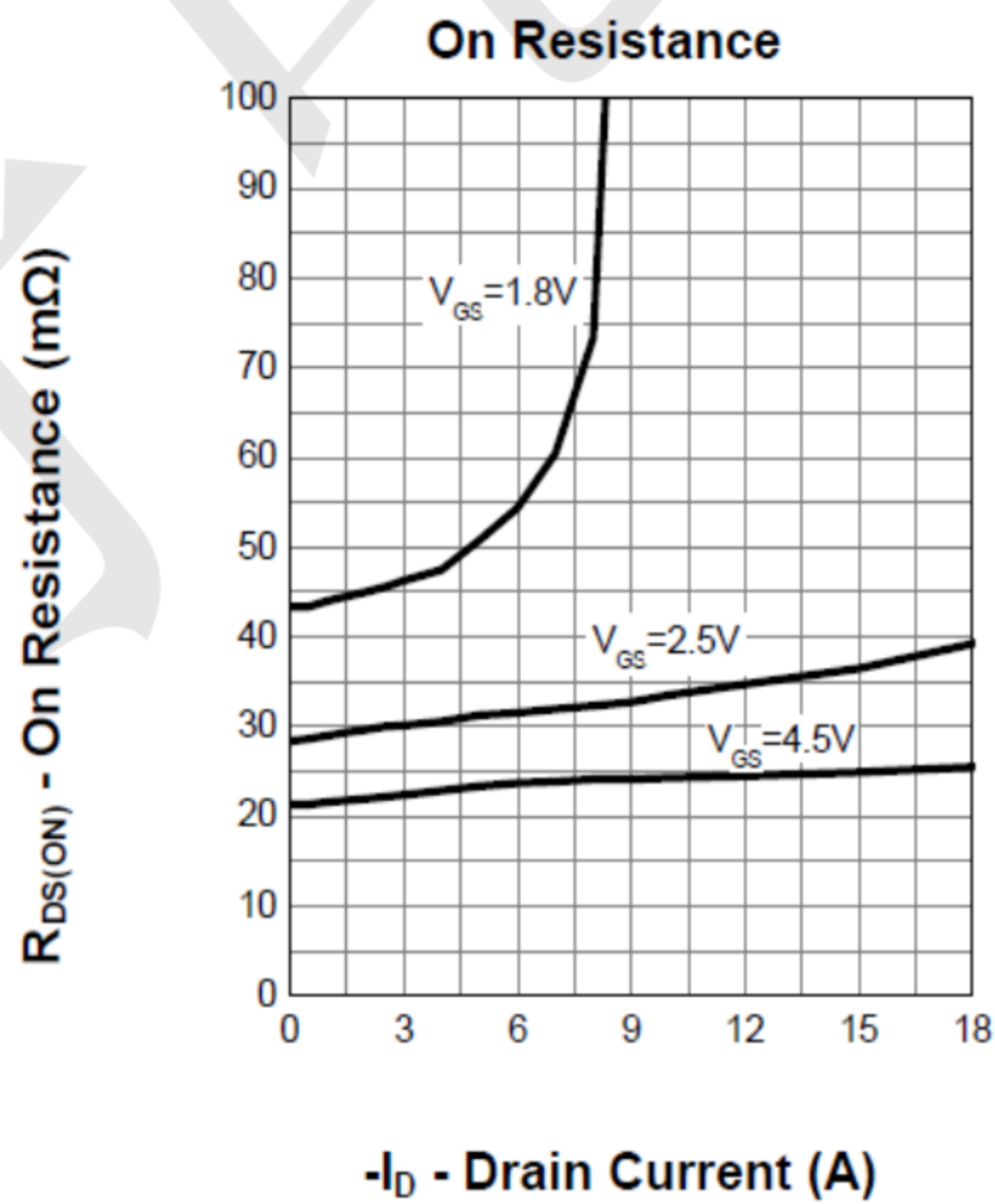
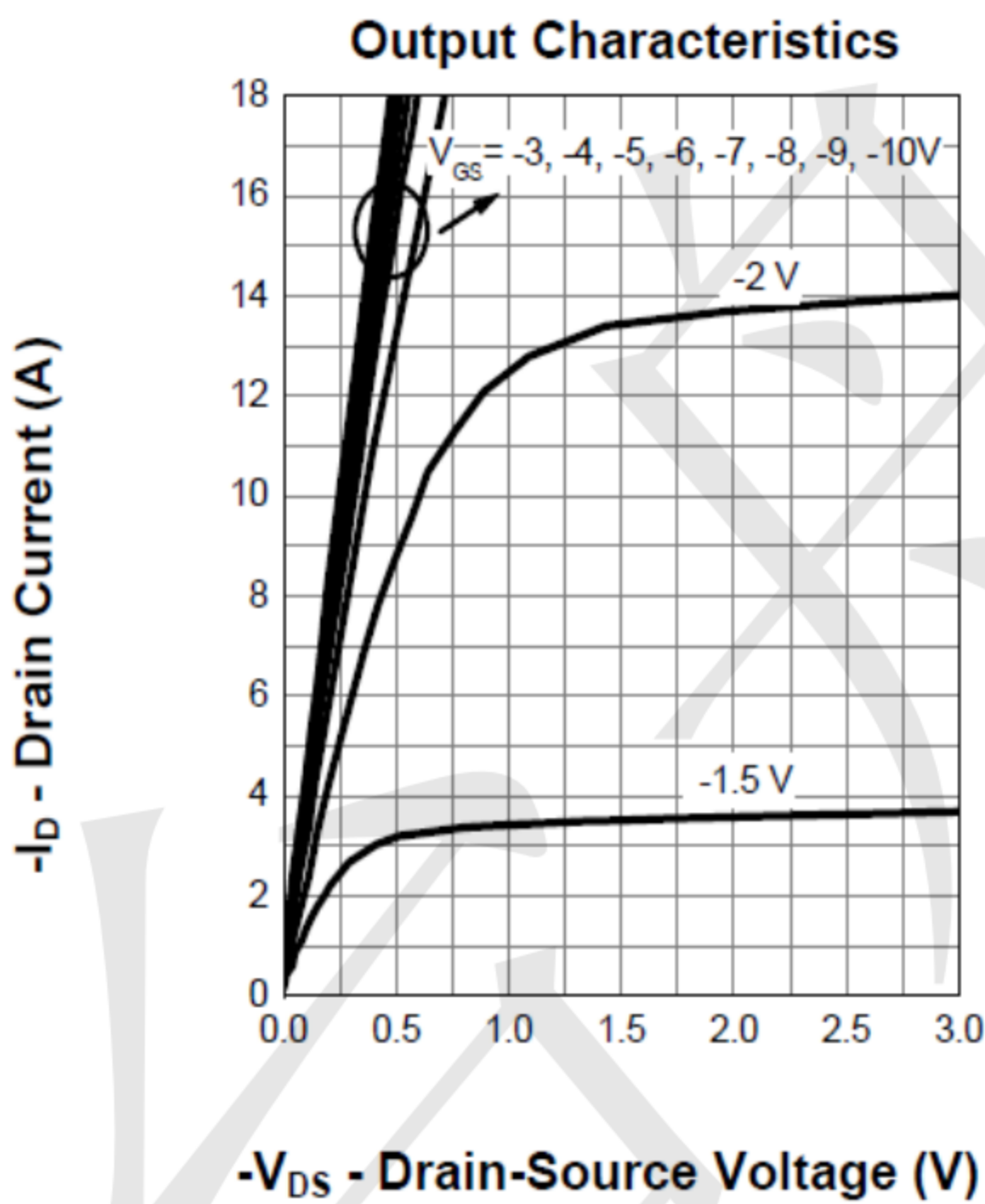
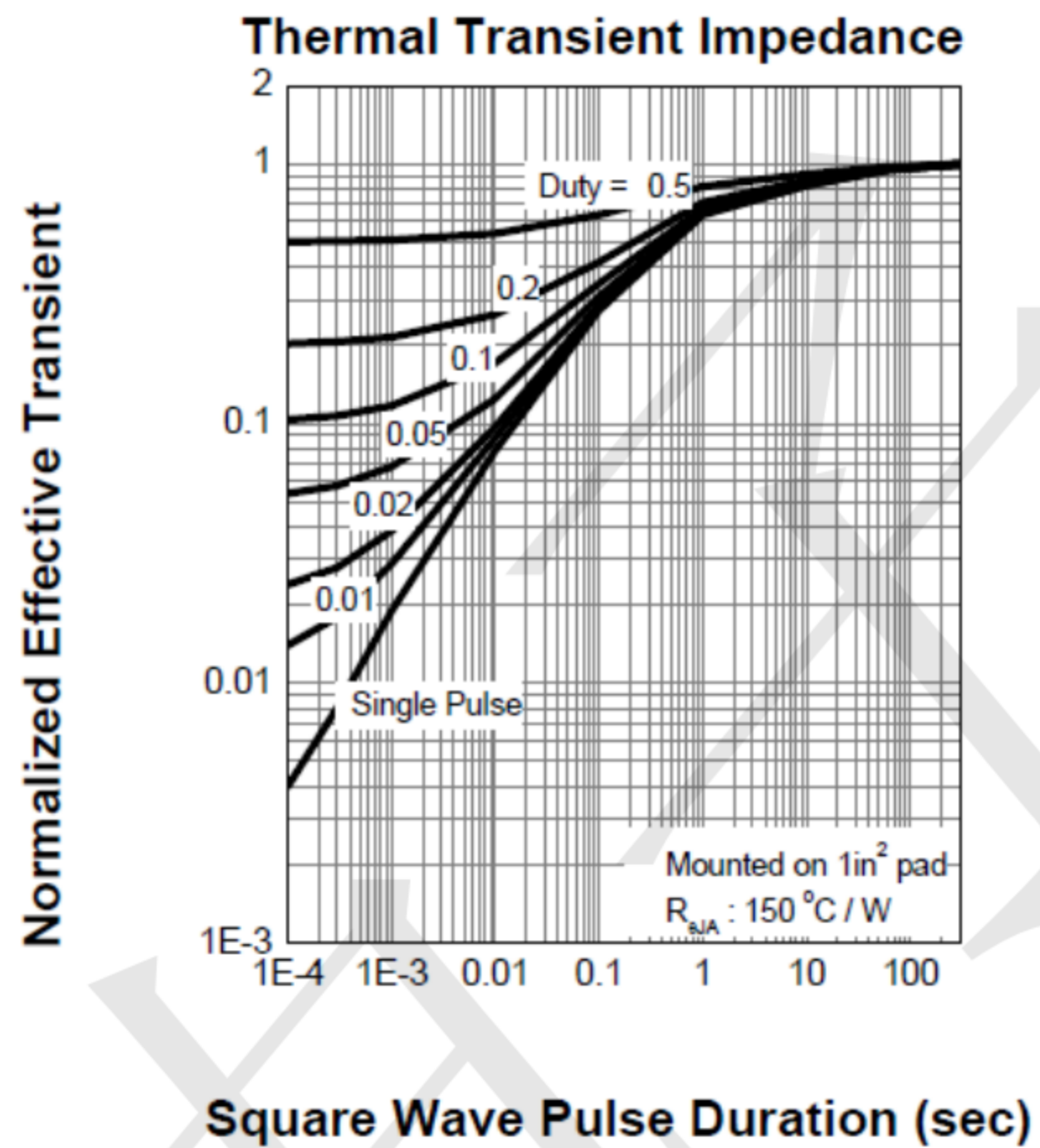
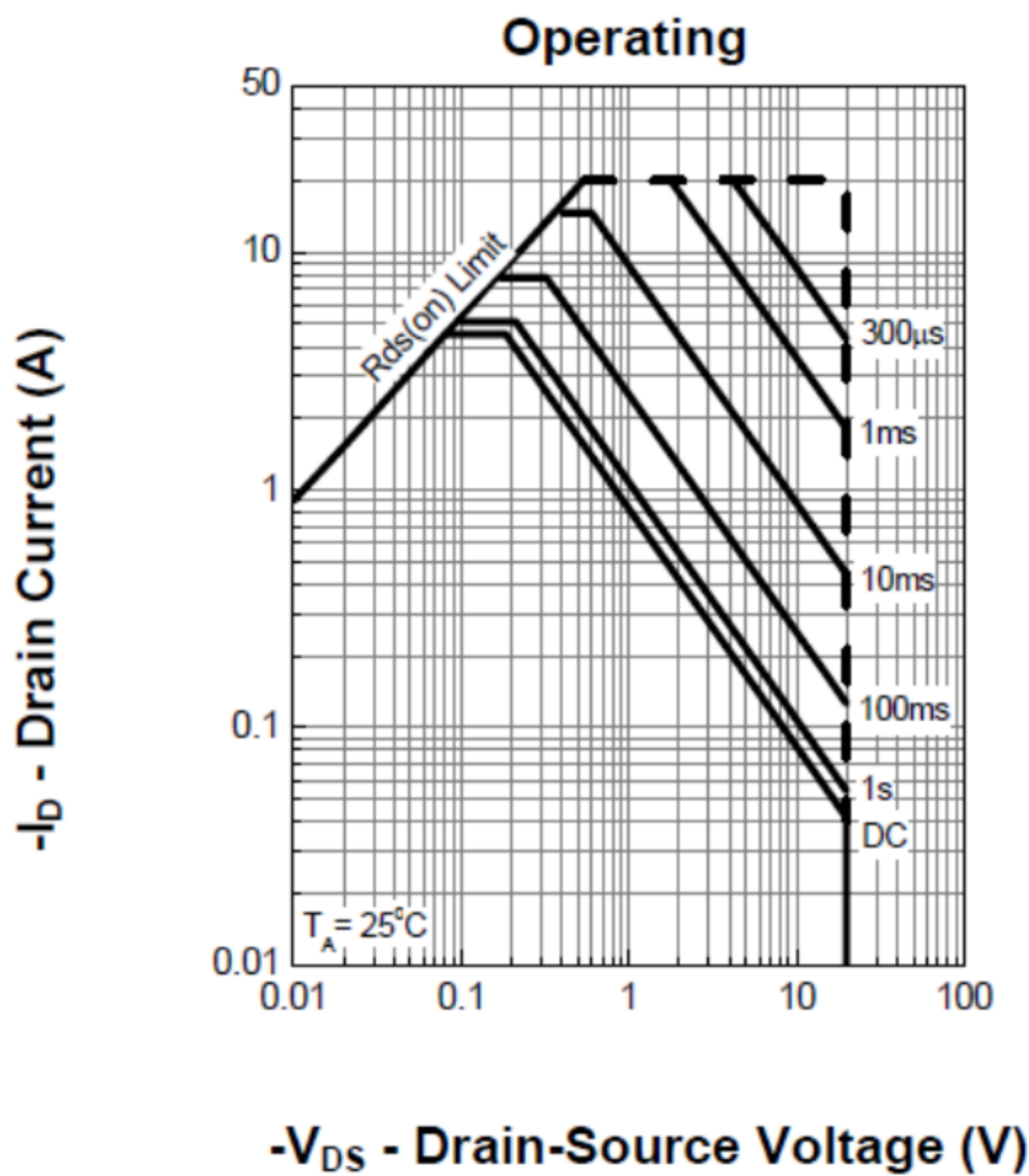
Electrical Characteristics (T_j=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS (Note 2)						
BVDSS	Drain-Source Breakdown Voltage	I _D =-250μA, V _{GS} =0 V	-20	-	-	V
IDSS	Zero Gate Voltage Drain Current	V _{DS} =-16 V, V _{GS} =0 V	-	-	1	μA
IGSS	Gate-Body leakage current	V _{DS} =0 V, V _{GS} =±8 V	-	-	±100	μA
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} I _D =-250μA	-0.4	-	-1	V
R _{DS(ON)}	Static Drain-Source On-Resistance ²	V _{GS} =-1.8V, I _D =-2A	-	45	68	mΩ
		V _{GS} =-2.50V, I _D =-4.1A	-	35	52	
		V _{GS} =-4.5V, I _D =-4.7A	-	30	39	
DYNAMIC PARAMETERS						
C _{iss}	Input Capacitance	V _{GS} =0V, V _{DS} =-10V, f=1MHz	-	1020	-	pF
C _{oss}	Output Capacitance		-	191	-	pF
C _{rss}	Reverse Transfer Capacitance		-	140	-	pF
SWITCHING PARAMETERS						
t _{d(on)}	Turn-On DelayTime ²	V _{GS} =-10V, V _{GEN} =-4.5V, R _L =10Ω, R _G =6Ω	-	25	50	ns
t _{d(off)}	Turn-Off DelayTime		I _D =-1A	-	71	
V _{SD}	Drain-Source Diode Forward Voltage	V _{GS} =0V, I _S =-1	-	-	-1.2	V

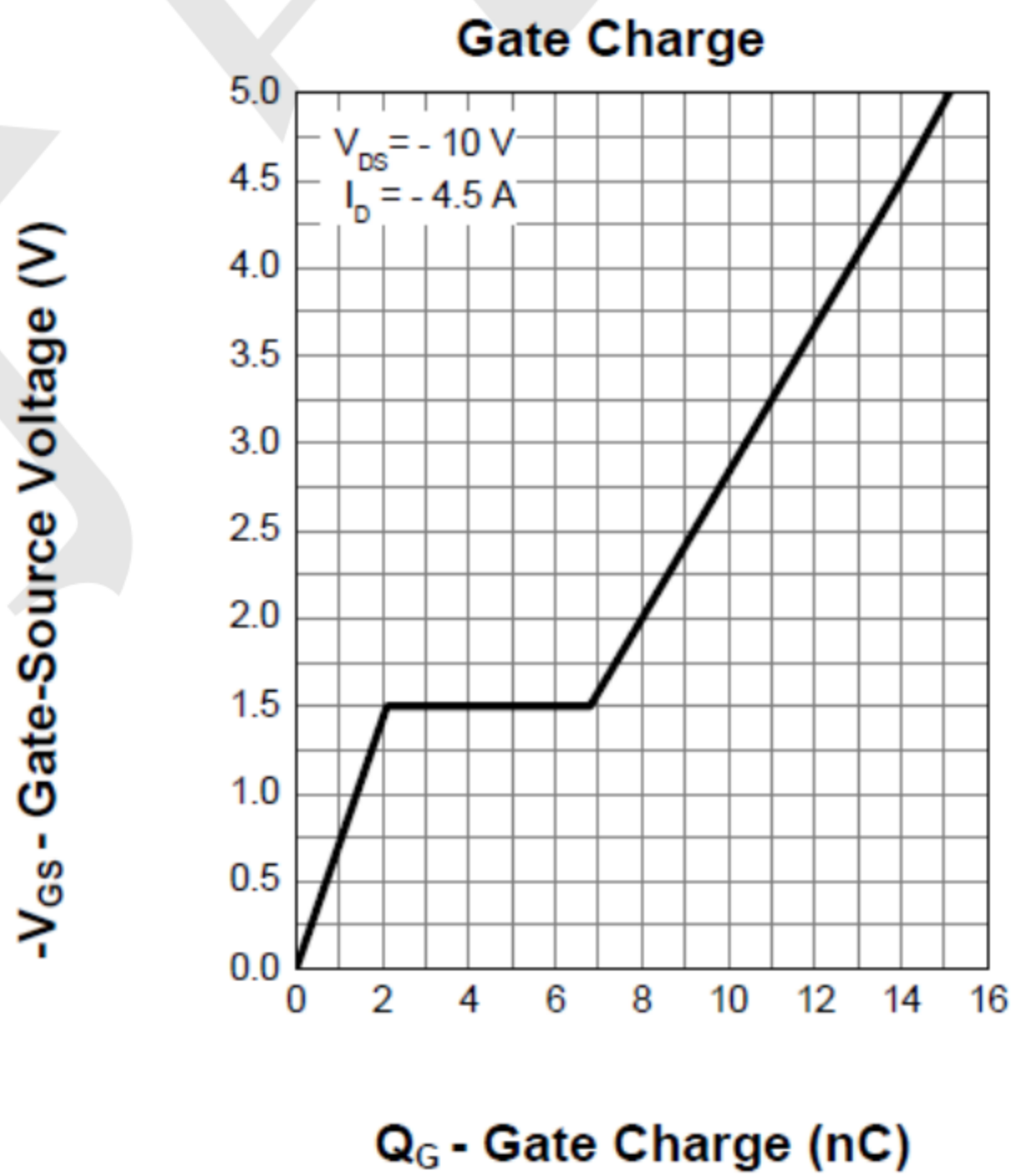
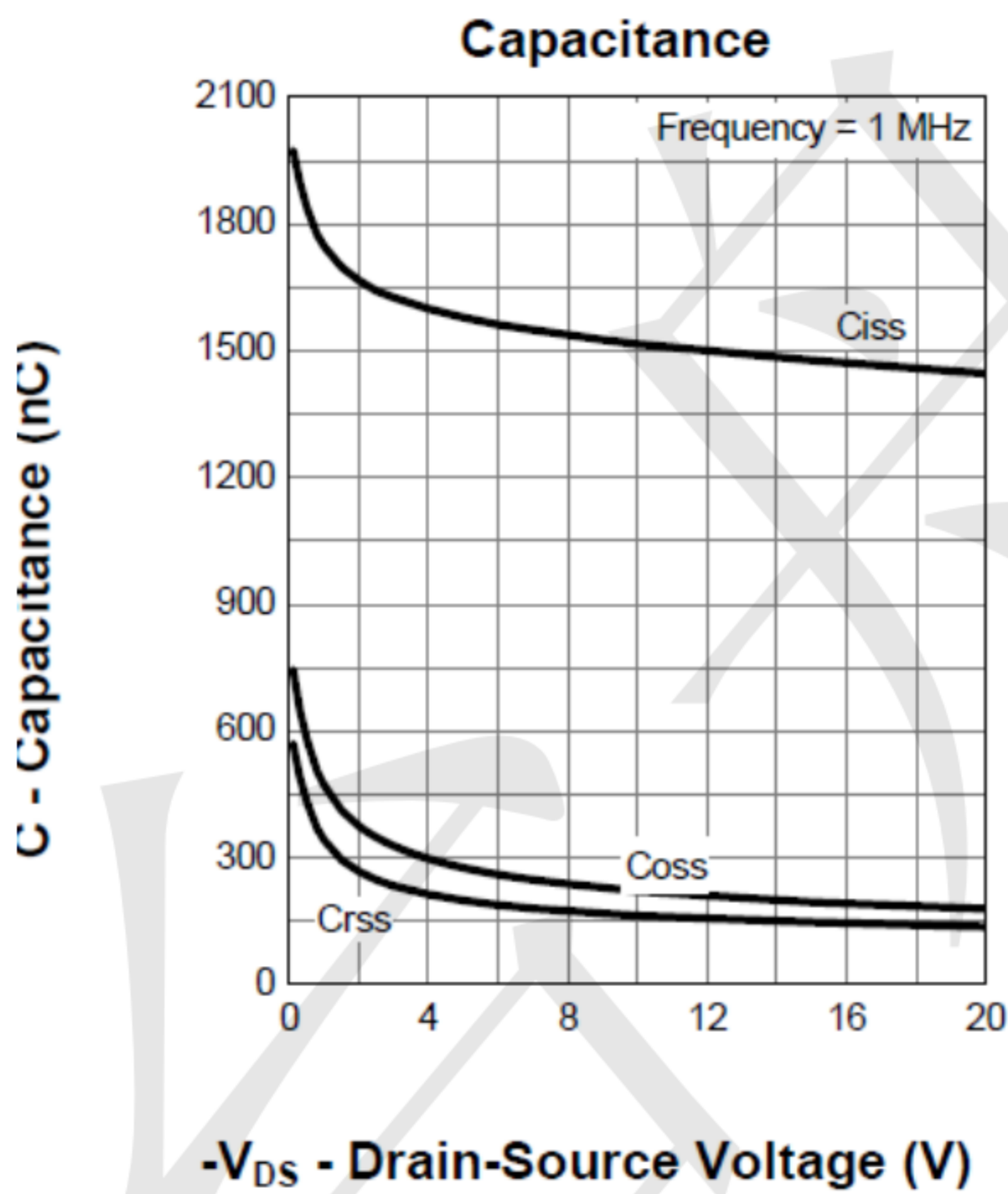
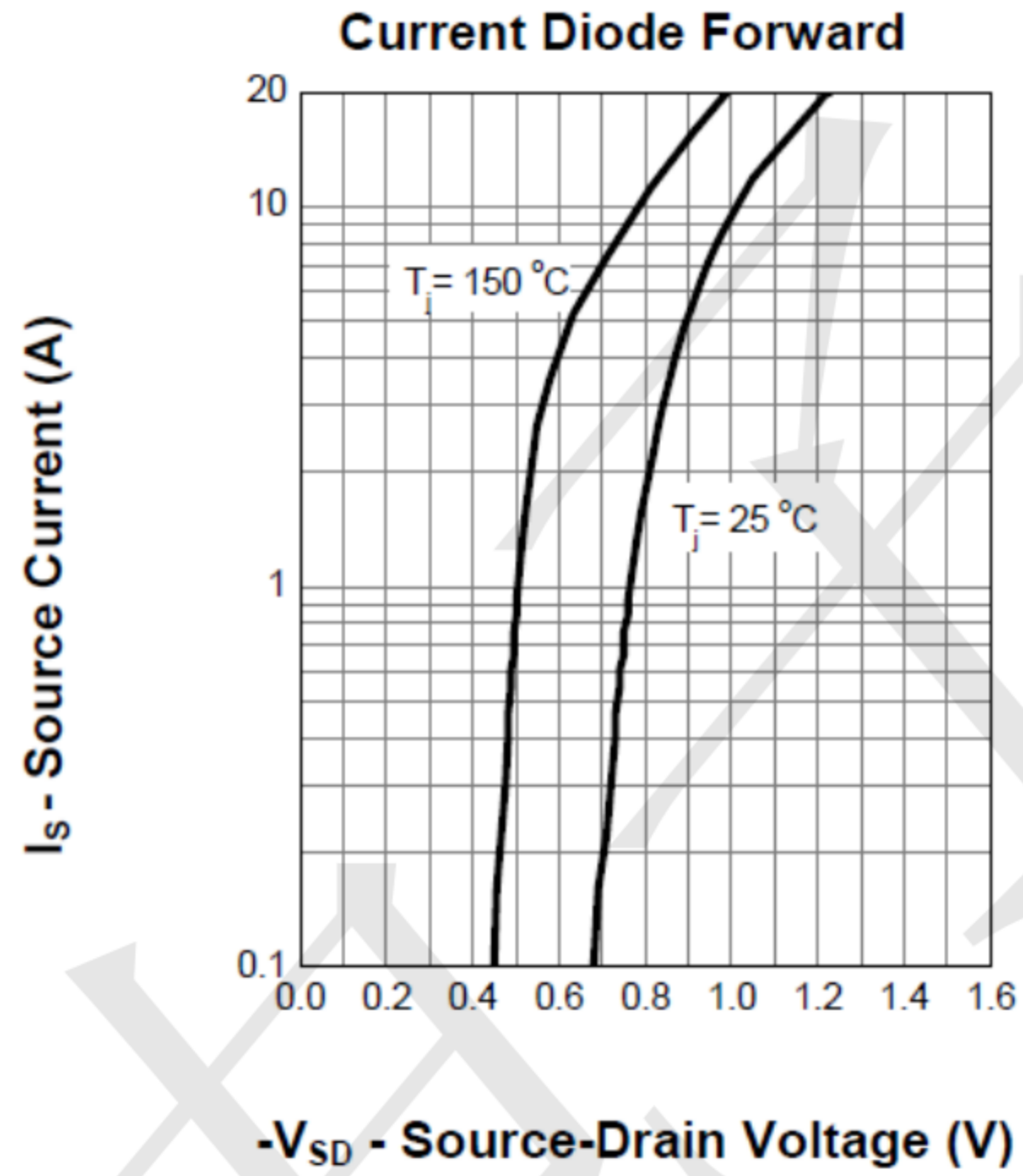
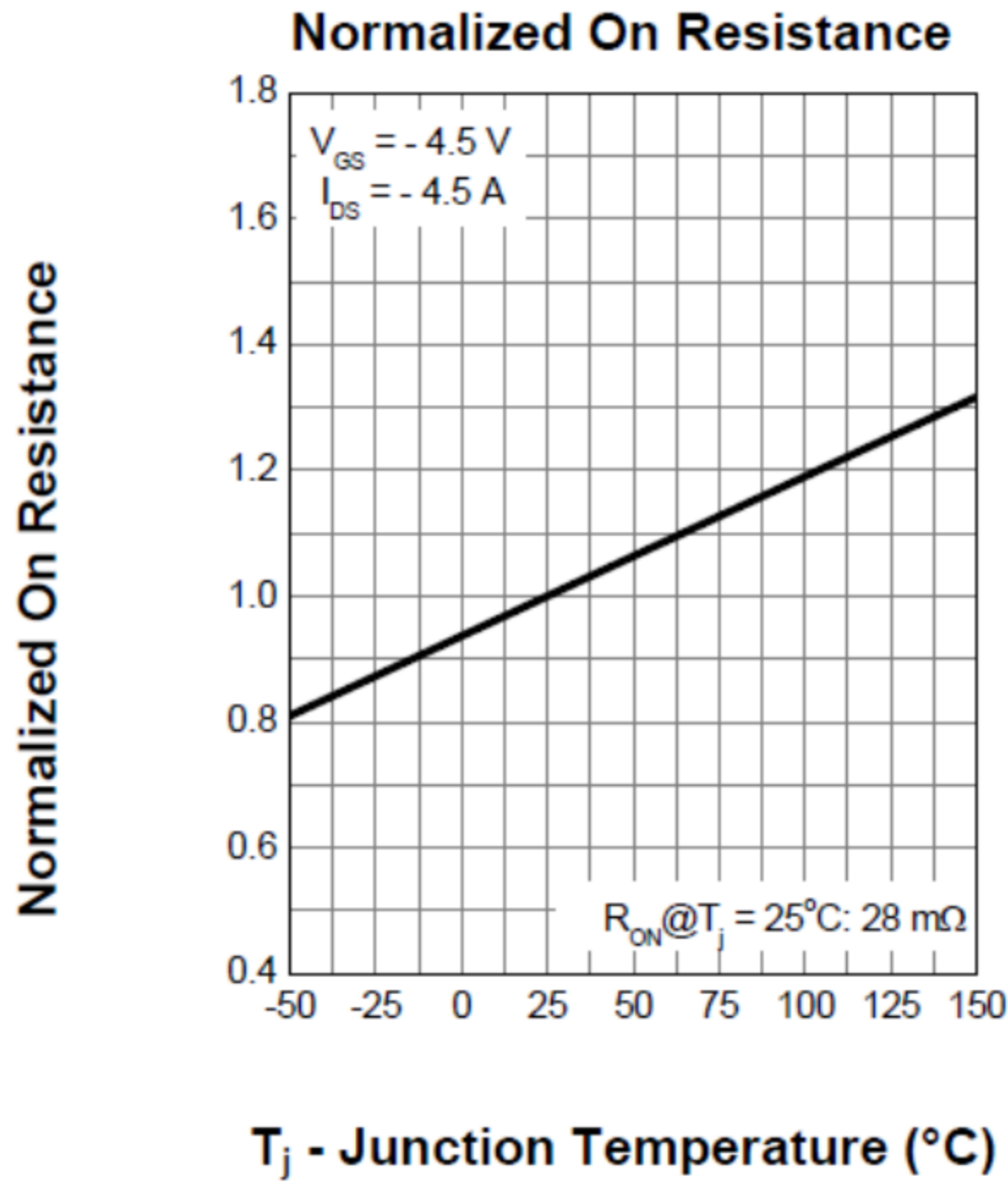
Typical Electrical and Thermal Characteristics



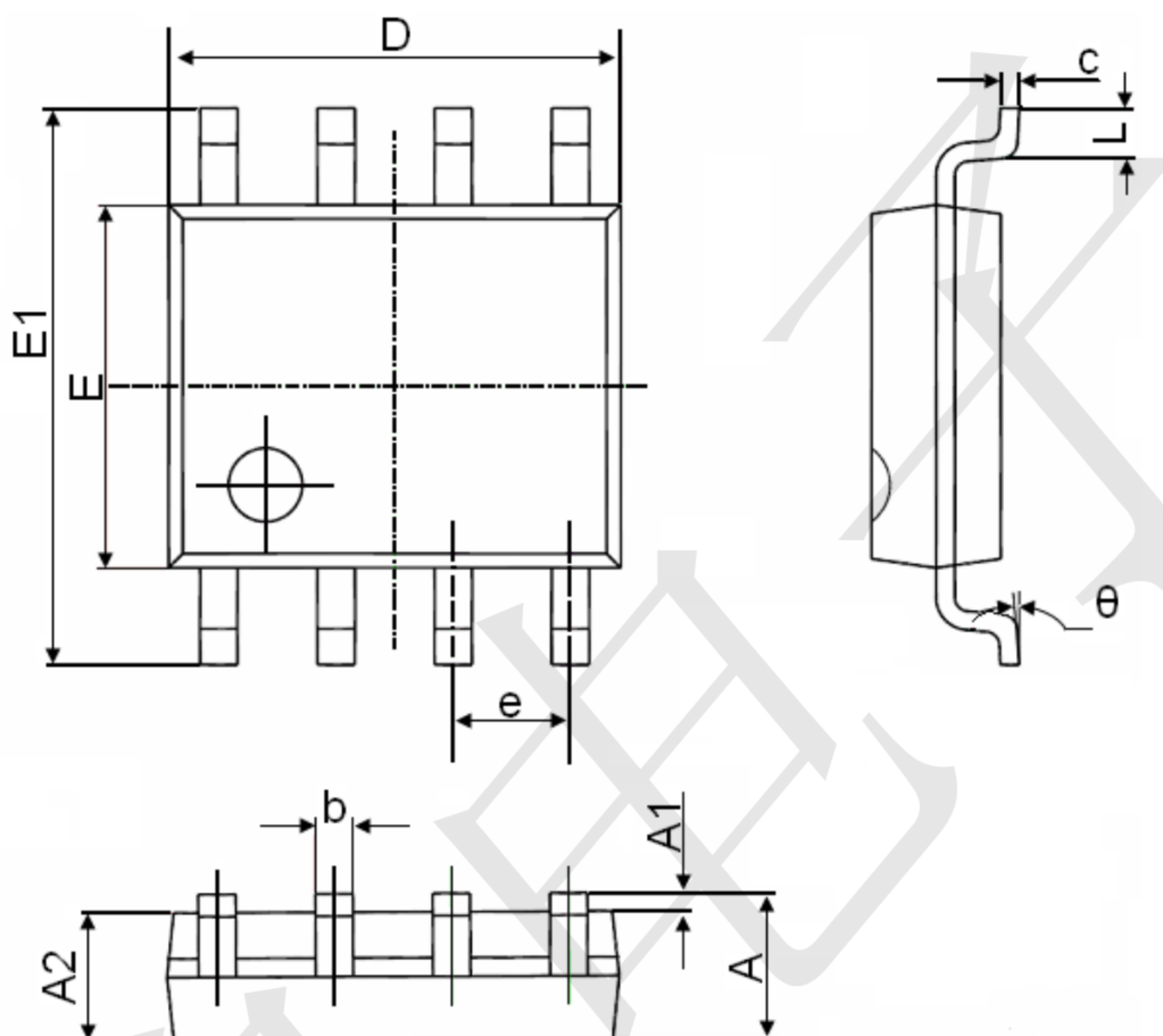
Typical Electrical and Thermal Characteristics



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SOP-8 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270(BSC)		0.050(BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°