

5 é / Descriptions

PDFN5~6A .> // x E N ?ú 3 « | • 'ož
Dual-CHANNEL MOSFET in PDFN56A Pb

C

□ a / Features

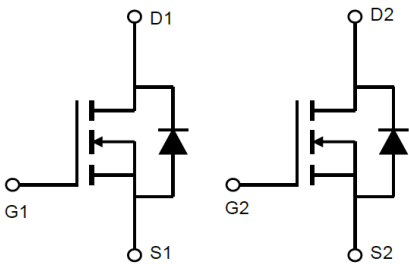
$V_{DS} (V) = 100V$ $I_D = 30A (V_{GS} = 20V)$
 $R_{DS(ON)} @ 10V = 25m\Omega (T_J = 20^\circ C)$
 $R_{DS(ON)} @ 4.5V = 35m\Omega (T_J = 25^\circ C)$
...` AEC-Q101 ö Ö ä U ´ Å } L z —)í D }ož
Qualified AEC-Q101 Saddle High Reliability HF Pd

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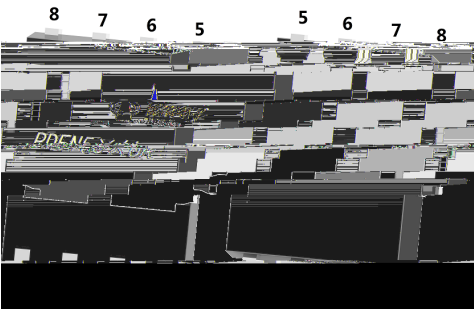
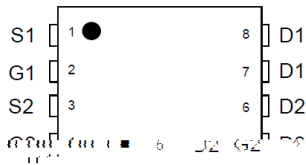
Đ ÷ / Applications

DC/DC ô E ~ k 9 ä È • ¼ y c 5 ... v k á V ñ • } Lož
DC/DC Converter Ideal for n c ab Meb
at

Ã W] Ô . / Equivalent Circuit



• Ů - æ / Pinning



, M V / Marking

• - ~ a ¢ož
Saddle C

Absolute Maximum Ratings(Ta=25℃ ;)

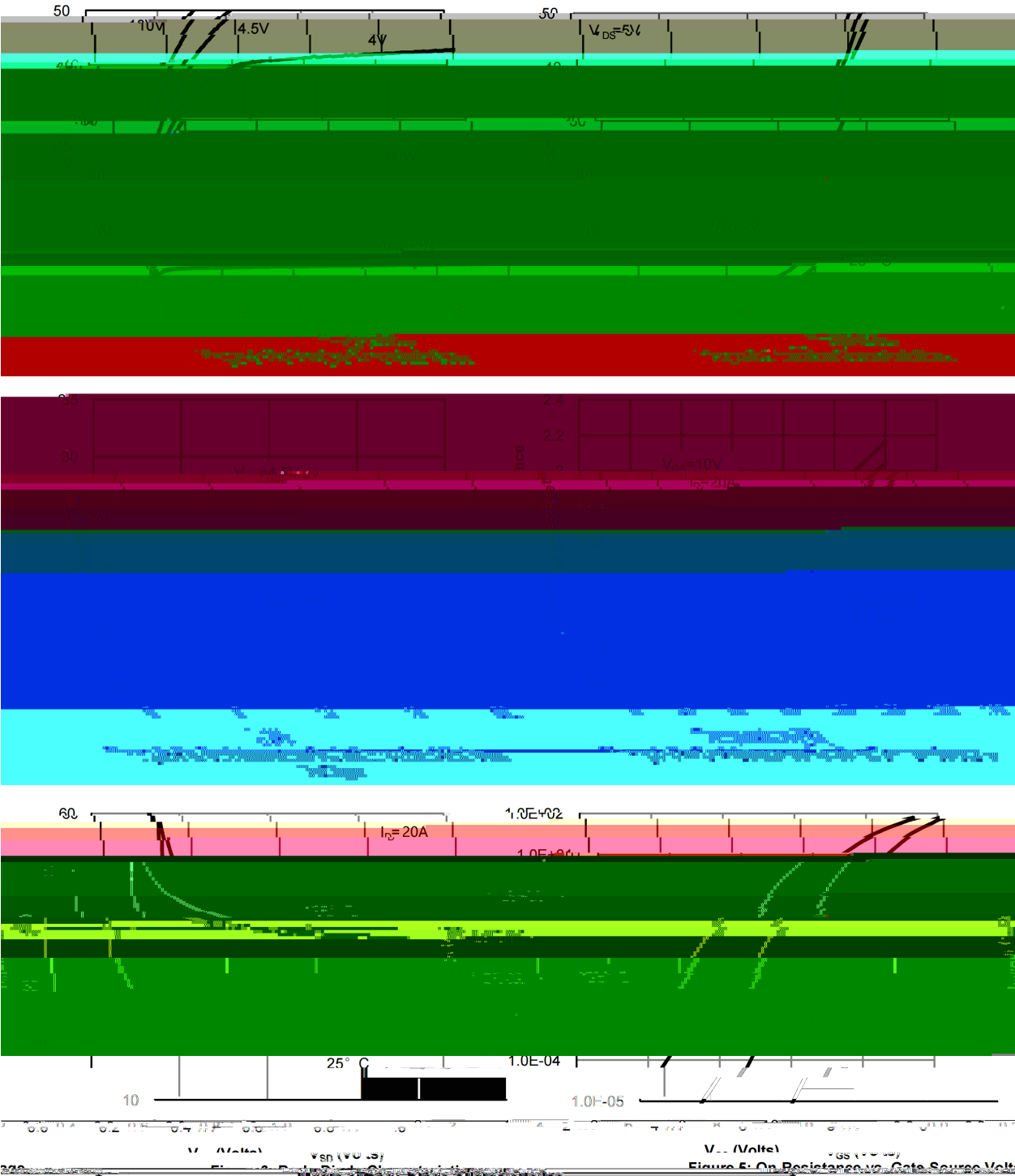
Symbol		Unit	Value
Drain-Source Voltage	V_{DS}	V	100
Gate-Drain Voltage	V_{GD}	V	30
Gate-Source Voltage	V_{GS}	V	113
Static Drain Current	I_{DSS}	A	20
Static Drain Current	I_{DSS}	A	7
Static Drain Current	I_{DSS}	A	24.5
Power Dissipation	P_D	W	45
Storage Temperature	T_{stg}	°C	-55 ~ 150
Thermal Resistance	$R_{\theta JA}$	°C/W	40
Thermal Resistance	$R_{\theta JC}$	°C/W	63
Thermal Resistance	$R_{\theta JC}$	°C/W	2.78

Symbol	Unit	Value	Symbol	Unit	Value
Drain-Source Voltage	V_{DS}	100	Gate-Source Voltage	V_{GS}	109
Gate-Drain Voltage	V_{GD}	30	Static Drain Current	I_{DSS}	20
Gate-Source Voltage	V_{GS}	113	Static Drain Current	I_{DSS}	7
Static Drain Current	I_{DSS}	24.5	Static Drain Current	I_{DSS}	24.5
Power Dissipation	P_D	45	Power Dissipation	P_D	45
Storage Temperature	T_{stg}	-55 ~ 150	Storage Temperature	T_{stg}	-55 ~ 150
Thermal Resistance	$R_{\theta JA}$	40	Thermal Resistance	$R_{\theta JC}$	63
Thermal Resistance	$R_{\theta JC}$	2.78	Thermal Resistance	$R_{\theta JC}$	2.78

Electrical Characteristics(Ta=25

@ f Parameter	Symbol	Unit	Min	Typ	Max	Unit
Turn-on Time	t _{on}			5		ns
Turn-off Time	t _{off}			3.2		
Delay Time	t _d			21		
Fall Time	t _f			3		

Electrical Characteristic Curve



Electrical Characteristic Curve

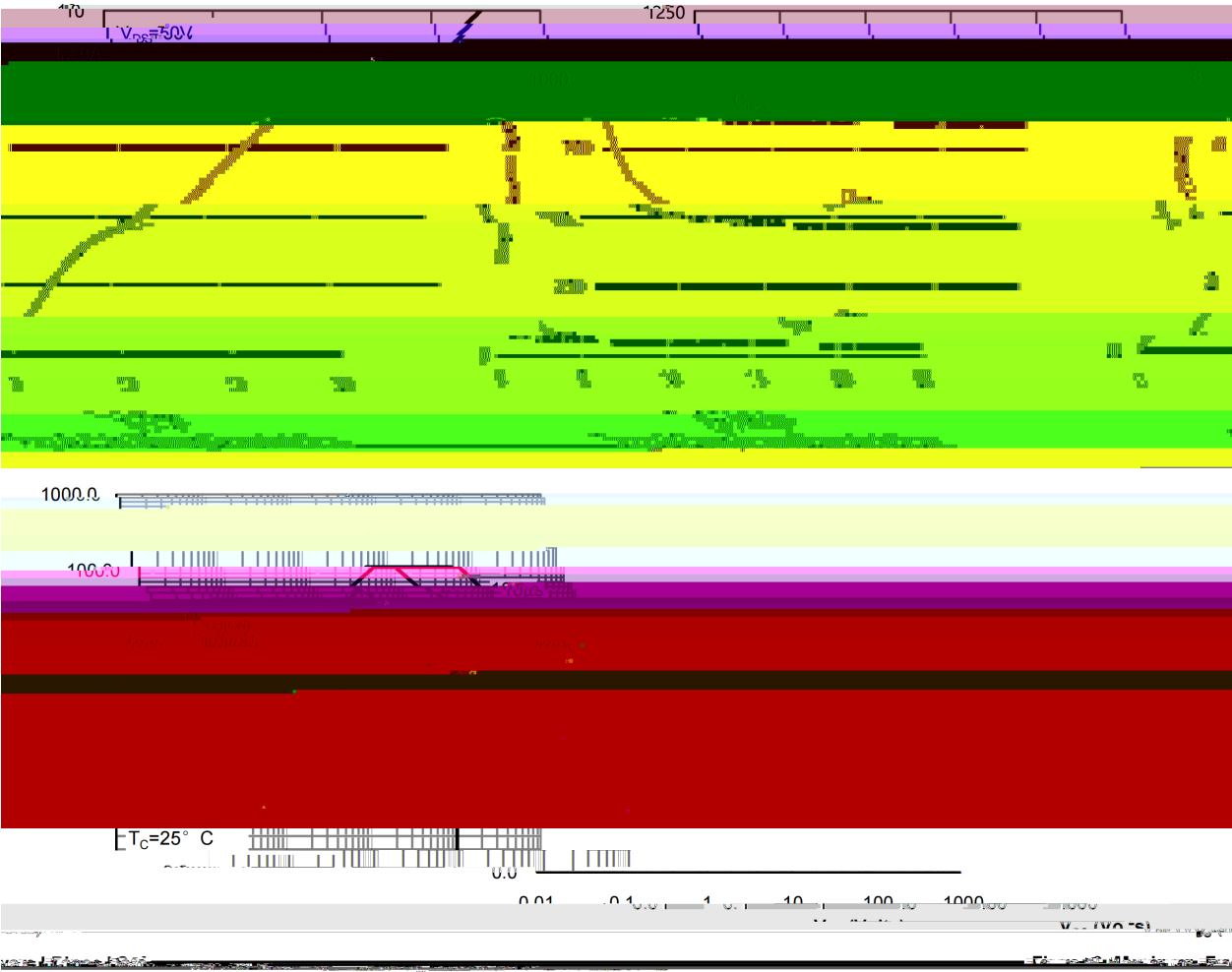
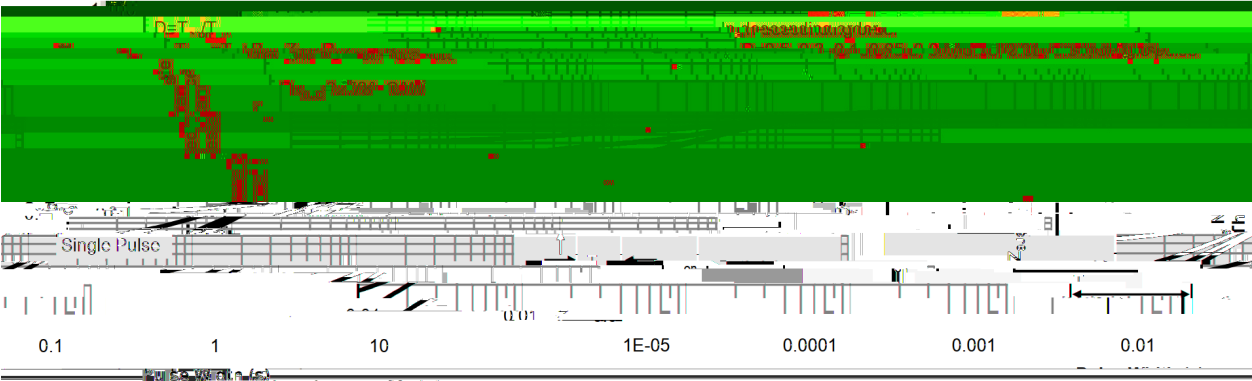


Figure 10: Normalized Maximum Transient Thermal Impedance

1. Marking Instructions

Part Number
(8 digits)
7 digits
250N10S y

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V ñ —)í D } ö œ

šWD t...•Žč (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KL RU] 9URJKXOTM 6

a ç y	Nb			
10• Ä ½ “† 150 ½200 - k ž • 60 ½120e		- , T	10120e	c
20• Q > “† 255 r5 - k ž • 4 Ò 5 r0.5e		r5 - , Dat	5 r0.5e	c
30•D N ò i Ò 0 ,† 2 ½10 - /e	Cp	210	- /e	c

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“† y 260 r5 -	ž • y 10 r1 e	T	101 e	c
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G P á / Packaging SPEC.

2 & x / REEL 40 . y f 1 % 0 0 4 ƒ f 1 . 0 5 7) D w (€ . ö) 6 % 7 (P x C Q • } u f ™ @ Q D A ÿ z 0 ~ G Q