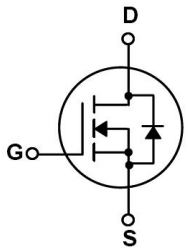
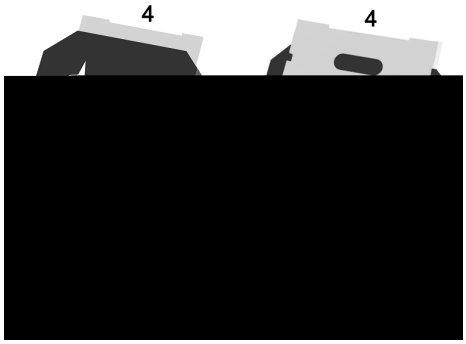
TO-252 .> / / x N ?ú 3 650V Ý È W + ä « | • ’ož
N-CHANNEL 650V Super-Junction Power MOSFET in a TO-252 Plastic Package.

8* 9 U ŦĄ k y > z k) X Y4 k • ¼ , † ½ k —)í D }ož
Low $R_{DS(on)}$,low gate charge, low C_{rss}, fast switching, HF Product.

ä œ ƒ û 3 k • ¼ › k • • ›ož
Power factor correction, Switched mode power supplies, Uninterruptible Power Supply.





PIN1 y G PIN 2 y D PIN 3 y S PIN 4 y D ,

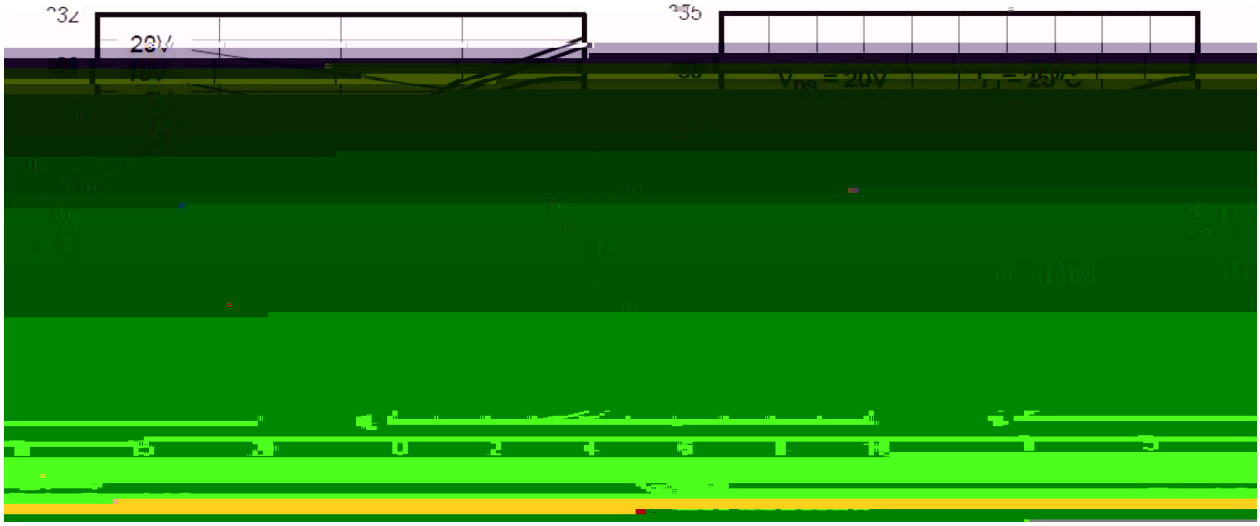
@ ƒ Parameter	… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	11	A
Drain Current - Pulsed	I_{DM}	44	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	243	mJ
Avalanche Current	I_{AS}	7.5	A
Power Dissipation	P_D(Tc=25)	125	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	-
Junction-to-Case	R_{JC}	1	- /W
Junction-to-Ambient	R_{JA}	55	- /W

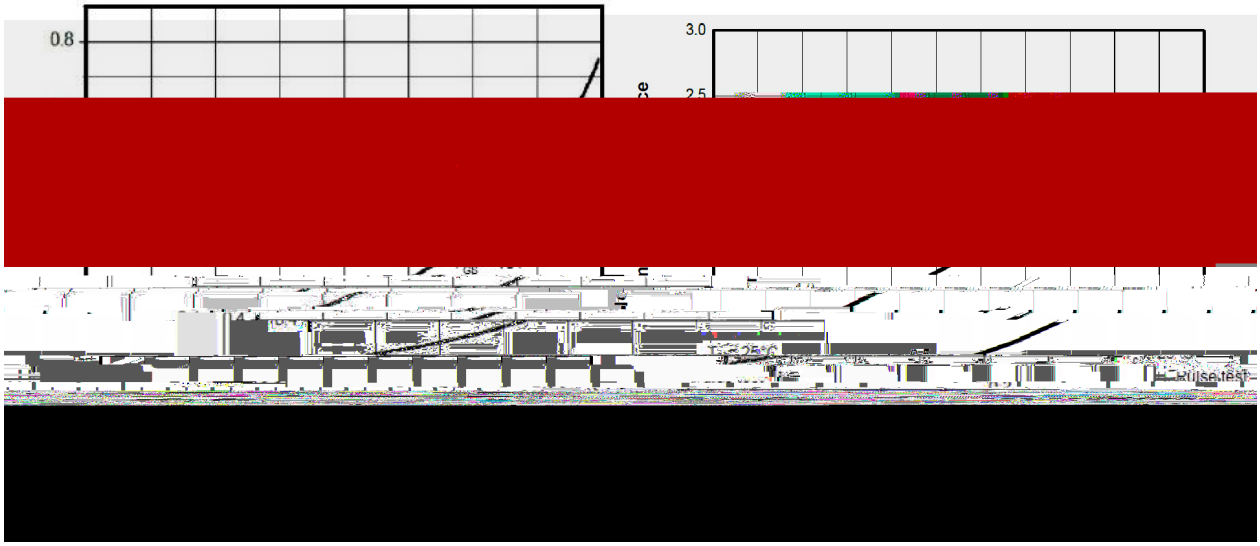
@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V V_{GS}=0V T_J=25			1.0	A
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	2.5	3.3	4.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=5.5A		370	380	m

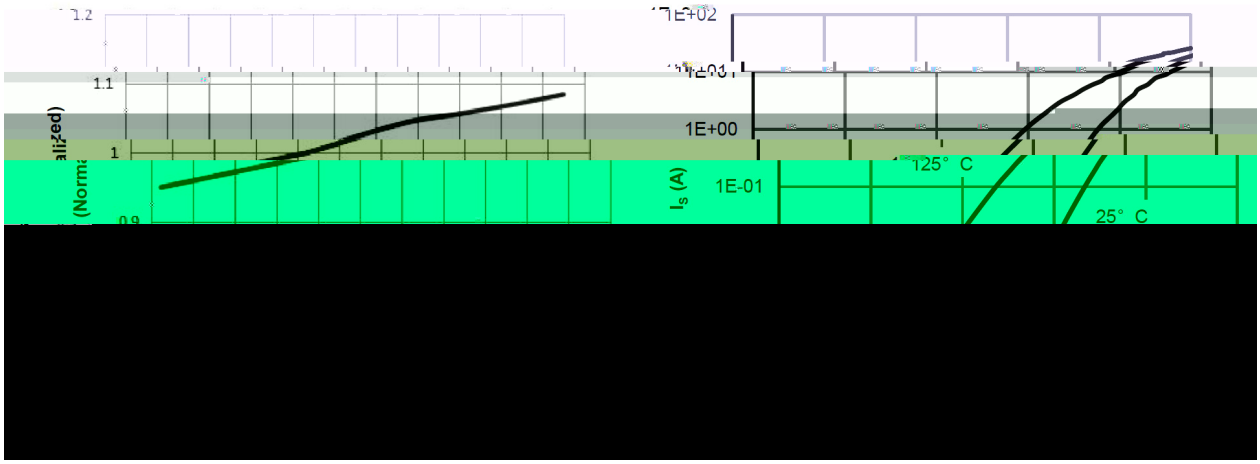
Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Continuous Diode Forward Current	I_S				11	A
Total Gate Charge	Q_g	V_{DS}=480V I_D=5.5A V_{GS}=10V		15.8		nC
Gate-Source Charge	Q_{gs}			4.3		nC
Gate-Drain Charge	Q_{gd}			1.7		nC
Reverse recovery time	T_{rr}	V_R=400 V, I_F=5.5A, dI_F/dt=100 A/ s		194.6		ns
Reverse recovery charge	Q_{rr}			1.8		uC

Ô ? d • Ž ¢ / Electrical Characteristic Curve







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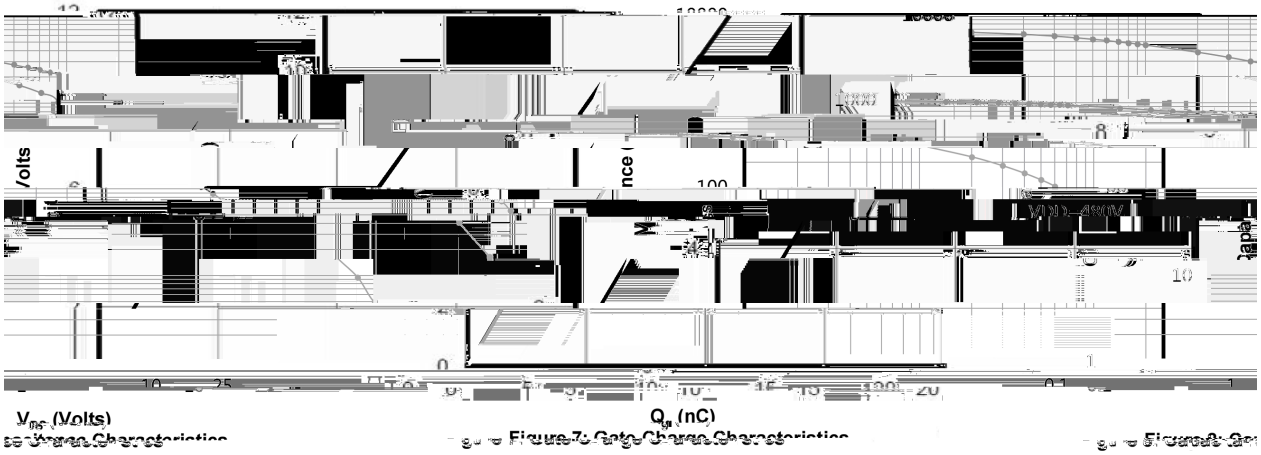
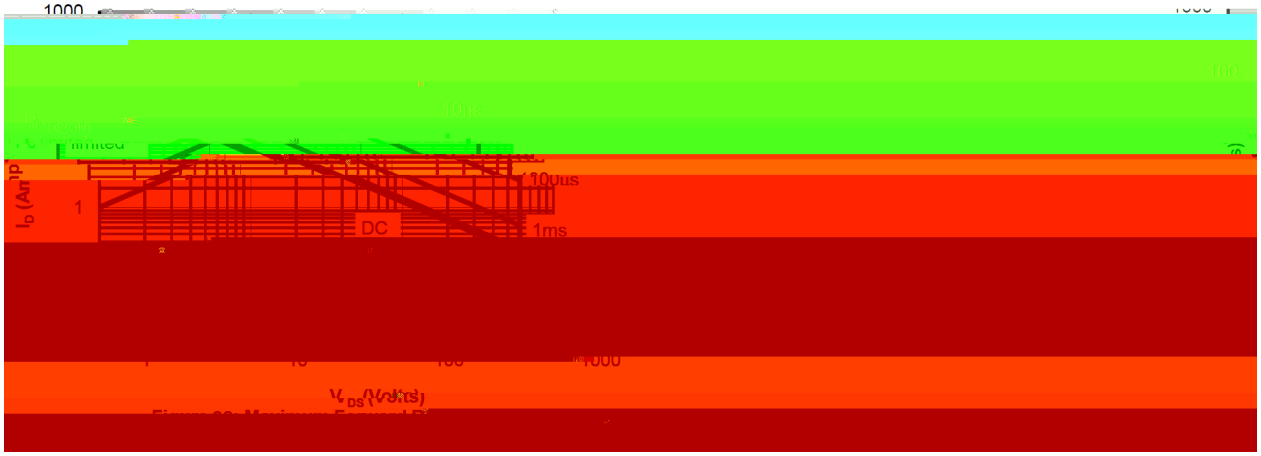
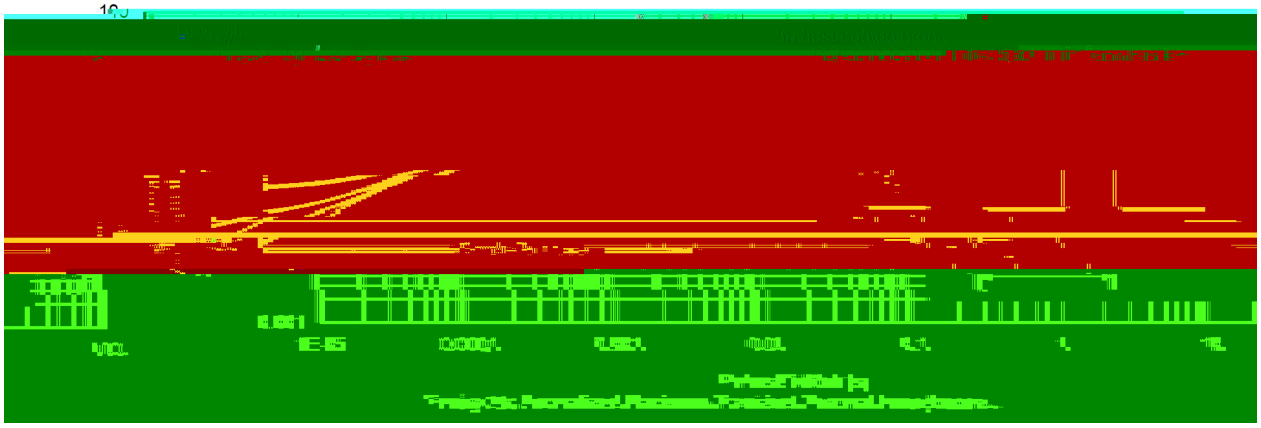
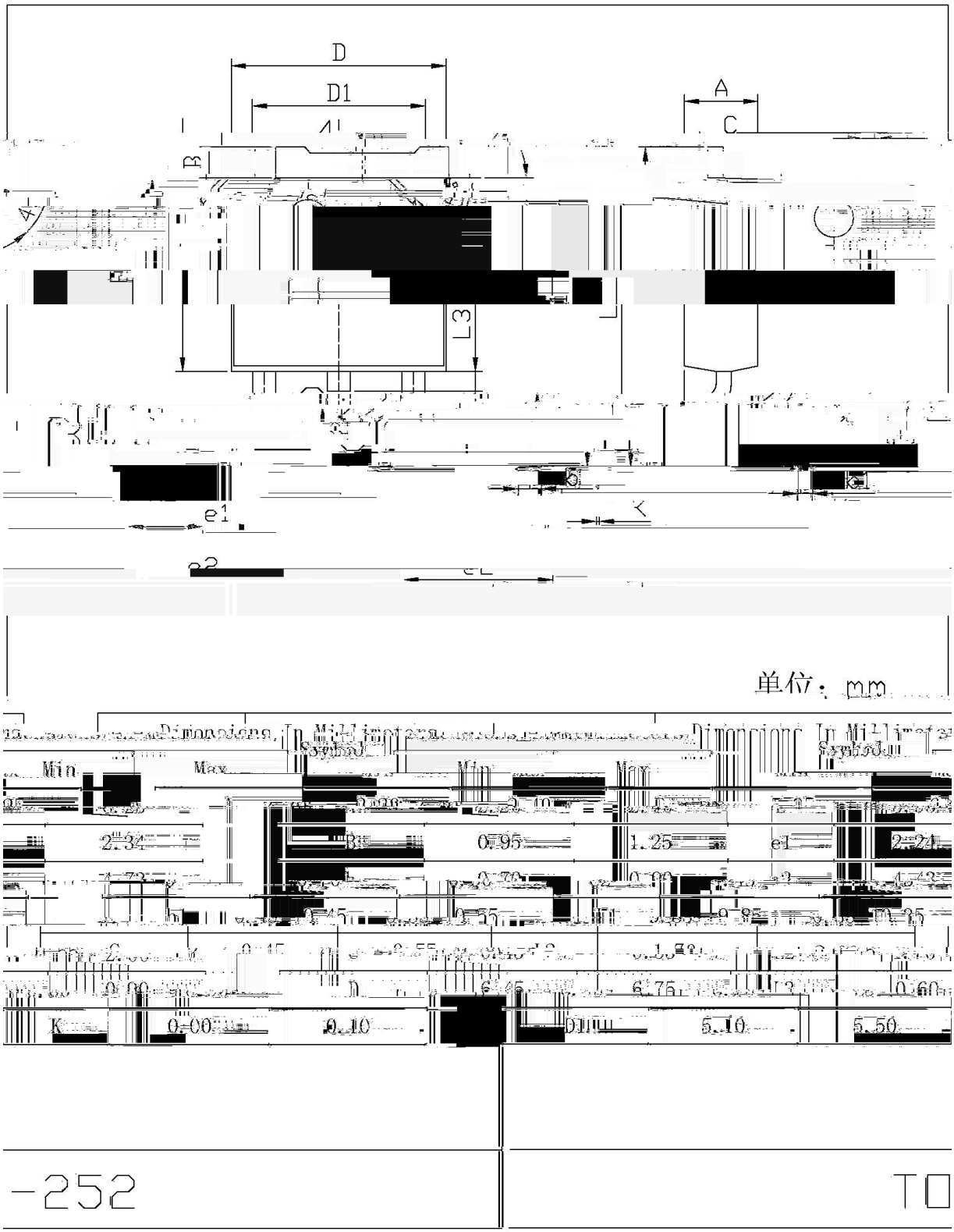


Figure 7: Gate Charge Characteristics

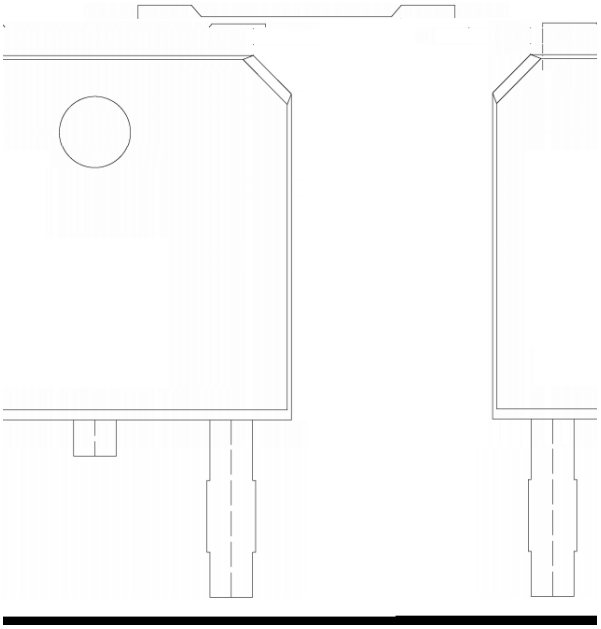




Ø ¤ =) ¢ / Package Dimensions



, M y ƒ / Marking Instructions



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Note:

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