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TO-252 .> / / x N ?ú 3 MOS « | • ’ož

N-CHANNEL MOSFET in a TO-252 Plastic Package.

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V_{DS}=500V I_D=3A

$R_{DS(ON)}$@10V 0 3.5 (Typ. 2.8)

½ , • ¼ož Fast Switching.

—)í D }ož HF Product.

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These devices are well suited for power switch circuit of adaptor and charger, intergrate fast recovery diode.

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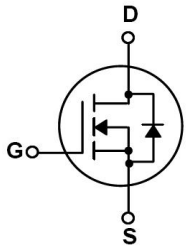

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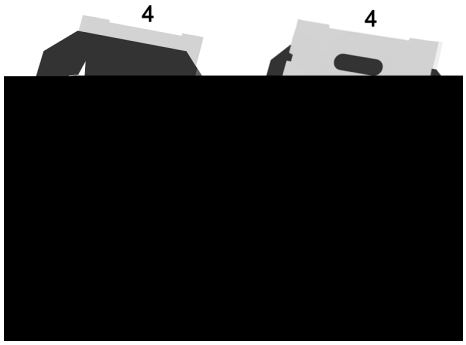

PIN1 y G PIN 2 y D PIN 3 y S PIN 4 y D

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See Marking Instructions.

@ ƒ Parameter	… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage	V_{DSS}	500	V
Drain Current	I_D(Tc=25)	3	A
Drain Current - Pulsed	I_{DM}	6	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	90	mJ
Avalanche Current	I_{AS}	4.5	A
Power Dissipation	P_D(Tc=25)	45	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	
Junction to Ambient	$R_{©JA}$	100	/W
Junction to Case	$R_{©JC}$	2.78	/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	500			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=500V V_{GS}=0V			1	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=1.5A		2.8	3.5	
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS} = 0 V I_S = 3.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		220		pF
Output Capacitance	C_{oss}			130		
Reverse Transfer Capacitance	C_{rss}			5		
Total Gate Charge	Q_G	V_{DS}= 400V I_D=3.0A V_{GS}= 10V		12.5		nC
Gate-Source Charge	Q_{GS}			3.2		
Gate-Drain Charge	Q_{GD}			4.2		

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@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=100V I_D=3.0A V_{GS}=10V R_G=25		5.2		ns
Turn-On Rise Time	t_r			20.3		
Turn-Off Delay Time	$t_{d(off)}$			45		
Turn-Off Fall Time	t_f			28		
Maximum Continuous Drain-Source Diode Forward Current	I_S				3	A
Maximum Pulsed Drain-Source Diode Forward Current	I_{SM}				6	A
Reverse Recovery Time	trr	V_{GS}=0V I_S=3.0A dI_F/dt=100 A/ s		64		ns
Reverse Recovery Charge	Qrr			0.8		µC

Rev.A Apr.-2024

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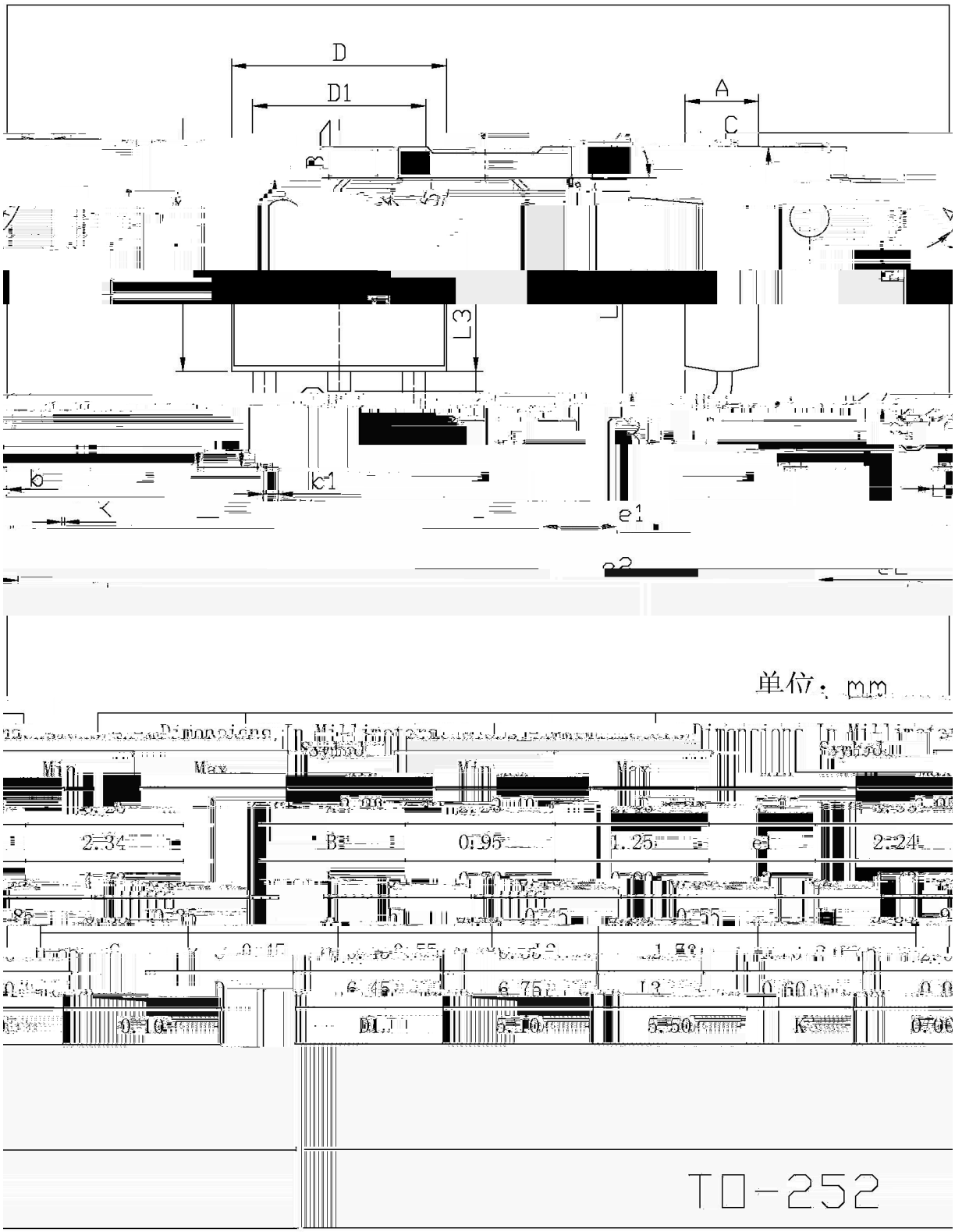

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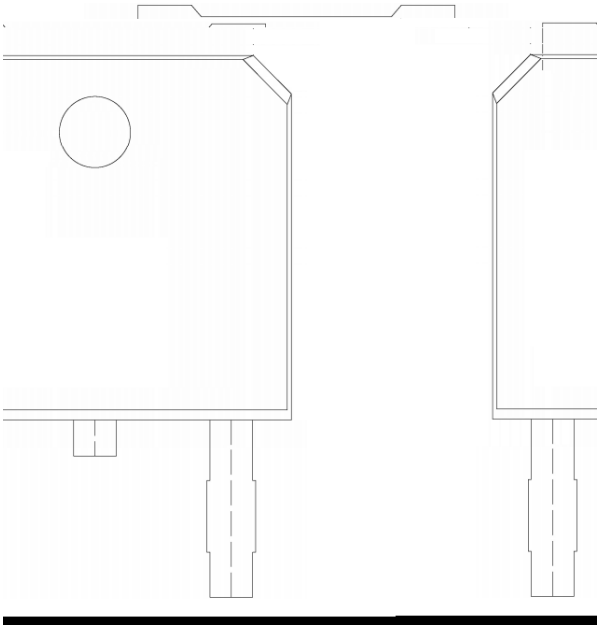

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Note:

BR:

š WD t … • Ž ¢ x / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r 5 - , Duration:5 r 0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »]

“ † y 260 r 5 - ž • y 10 r 1 sec. Temp.:260±5 Time:10±1 sec

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2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H	Dimension ;>û p . (unit ÆEmm³)