/ Descriptions

TO-220 Ṃ Ṃ Ŀ N ێ MOS ʃ ᾧ Ẕ ˥ N-CHANNEL MOSFET in a TO-220 Plastic Package.

/ Features

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Low gate charge, low crss, fast switching.

/ Applications

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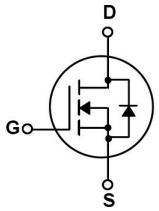
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.





PIN1 χ G PIN 2 χ D PIN 3 χ S

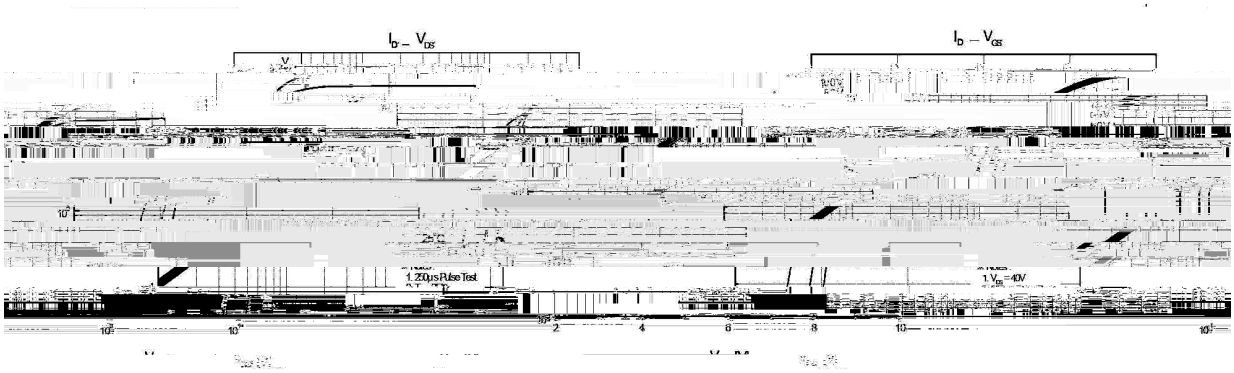
/ h_{FE} Classifications & Marking

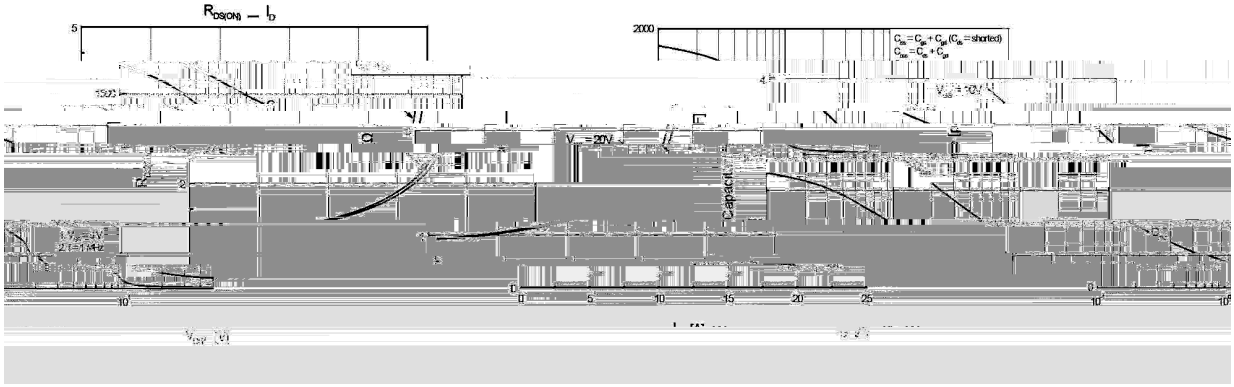
ð ʍ ˥ ب ˝ See Marking Instructions.

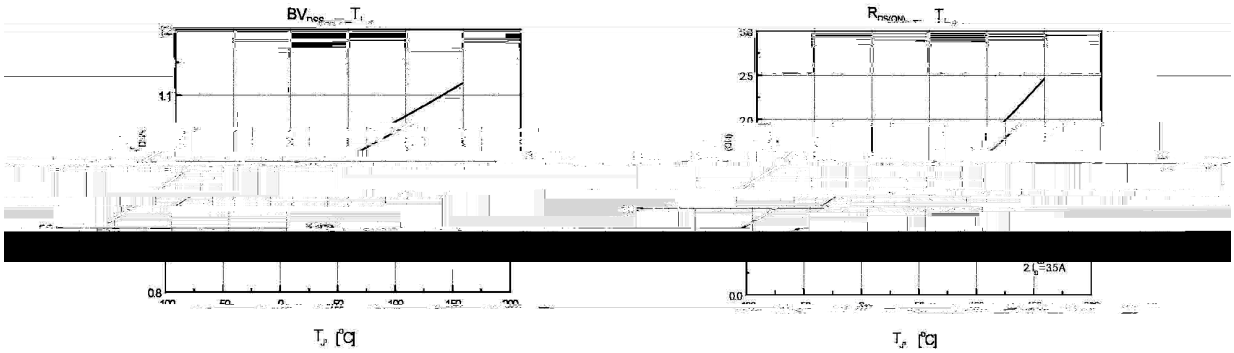
v ˝Ω Parameter	ϒ N Symbol	˝Ω Ö Rating	D Ч Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	I_D(Tc=25)	7.0	A
Drain Current	I_D(Tc=100)	4.4	A
Drain Current - Pulsed	I_{DM}	28	A
Gate-Source Voltage	V_{GS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	420	mJ
Repetitive Avalanche Energy	E_{AR}	14.7	mJ
Avalanche Current	I_{AR}	7.0	A
Power Dissipation	P_D(Tc=25)	147	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

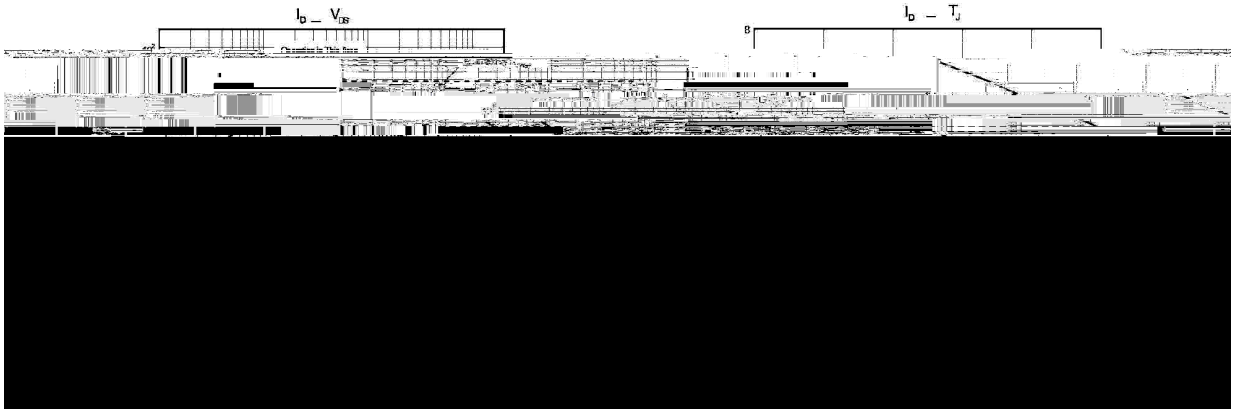
v ˝Ω Parameter	ϒ N Symbol	⅄ ː† ţ Test Conditions	ω ņ Ö Min	Ɛ ʒ Ö Typ	ω ᶻ Ö Max	D Ч Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	650			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=650V V_{GS}=0V			1.0	μA
		V_{DS}=520V T_C=125			100	μA
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=3.5A			1.3	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=3.5A		8.2		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=7.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		1100	1500	pF
Output Capacitance	C_{oss}			110	150	pF

/ Electrical Characteristic Curve

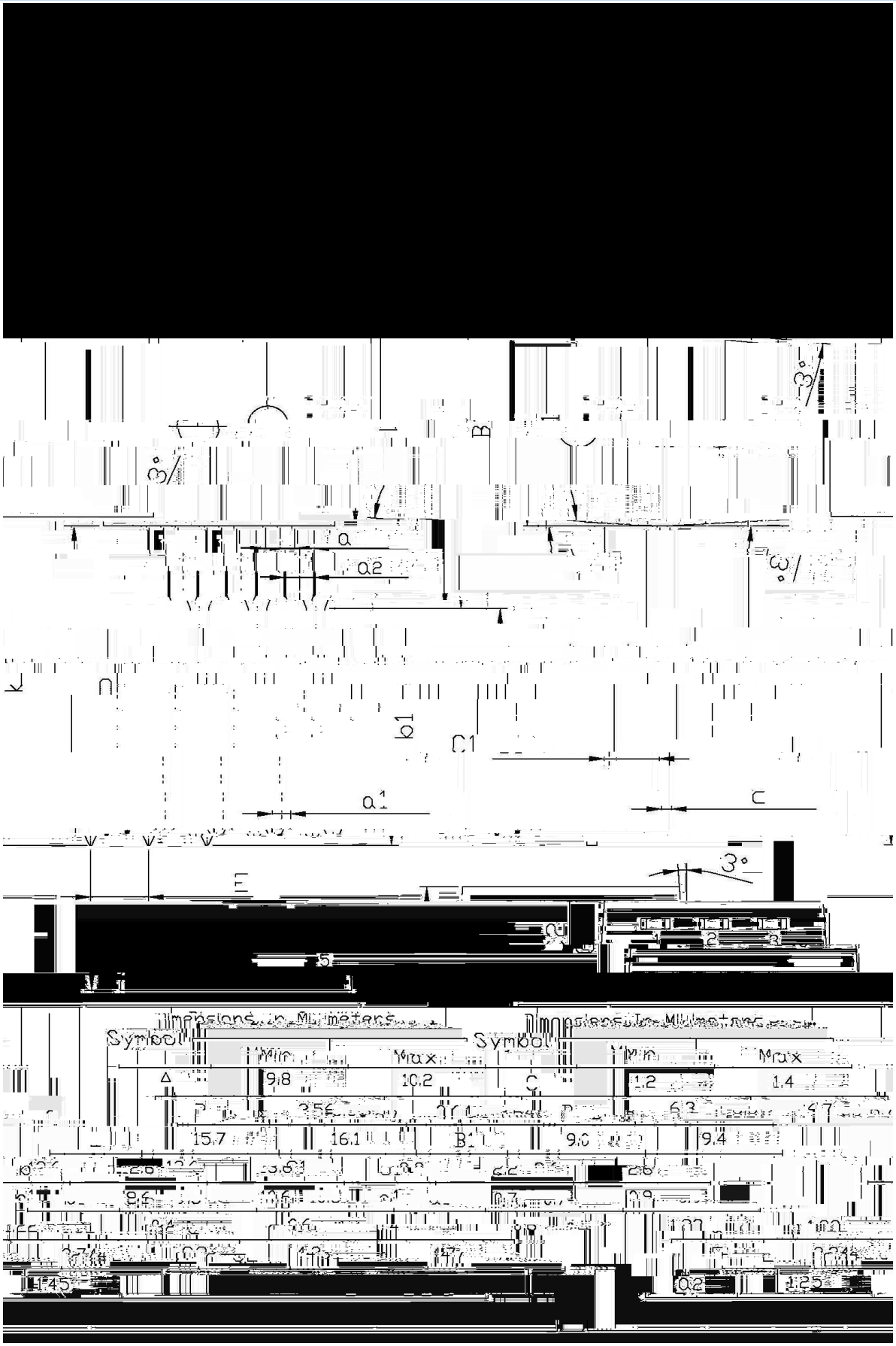




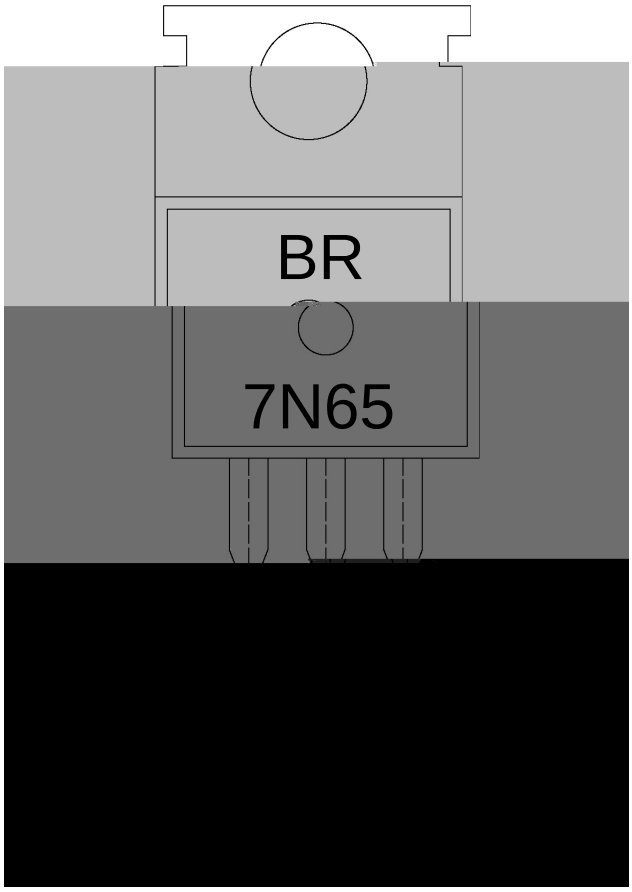




/ Package Dimensions



/ Marking Instructions



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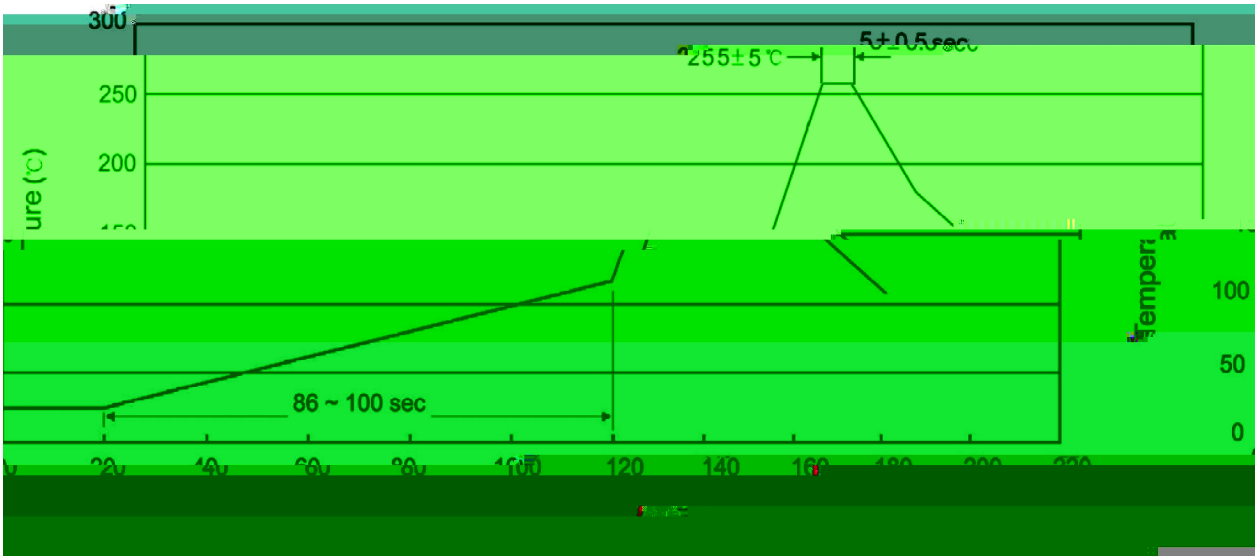
Note:

BR:	Company Code
7N65:	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



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