

/ Descriptions

TO-220 N MOS N-CHANNEL MOSFET in a TO-220 Plastic Package.

/ Features

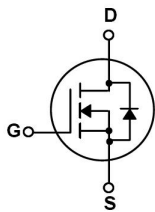
Low gate charge, low crss, fast switching.

/ Applications

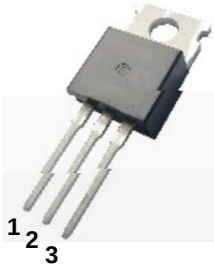
DC/DC

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

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S

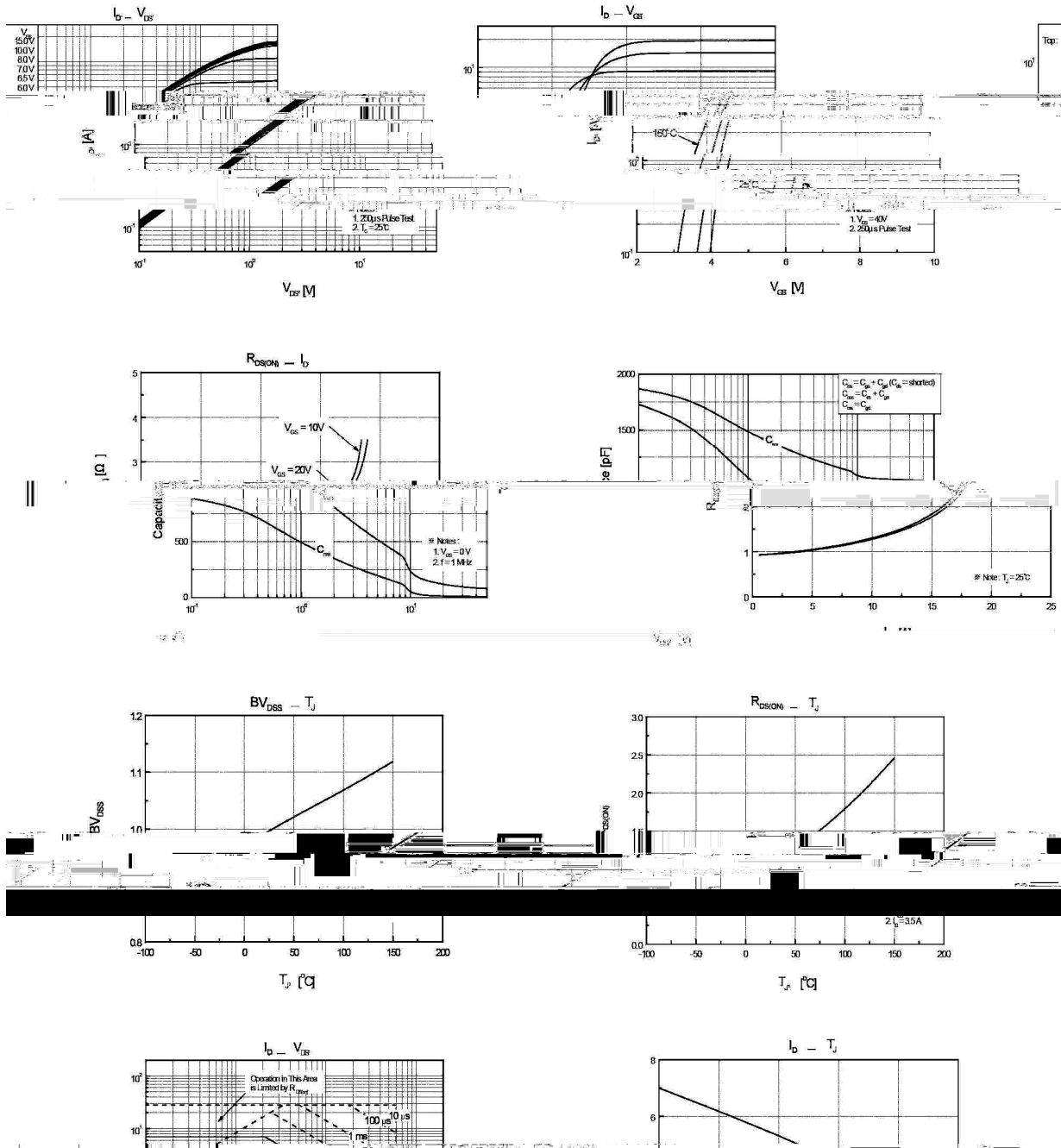
/ h_{FE} Classifications & Marking

See Marking Instructions.

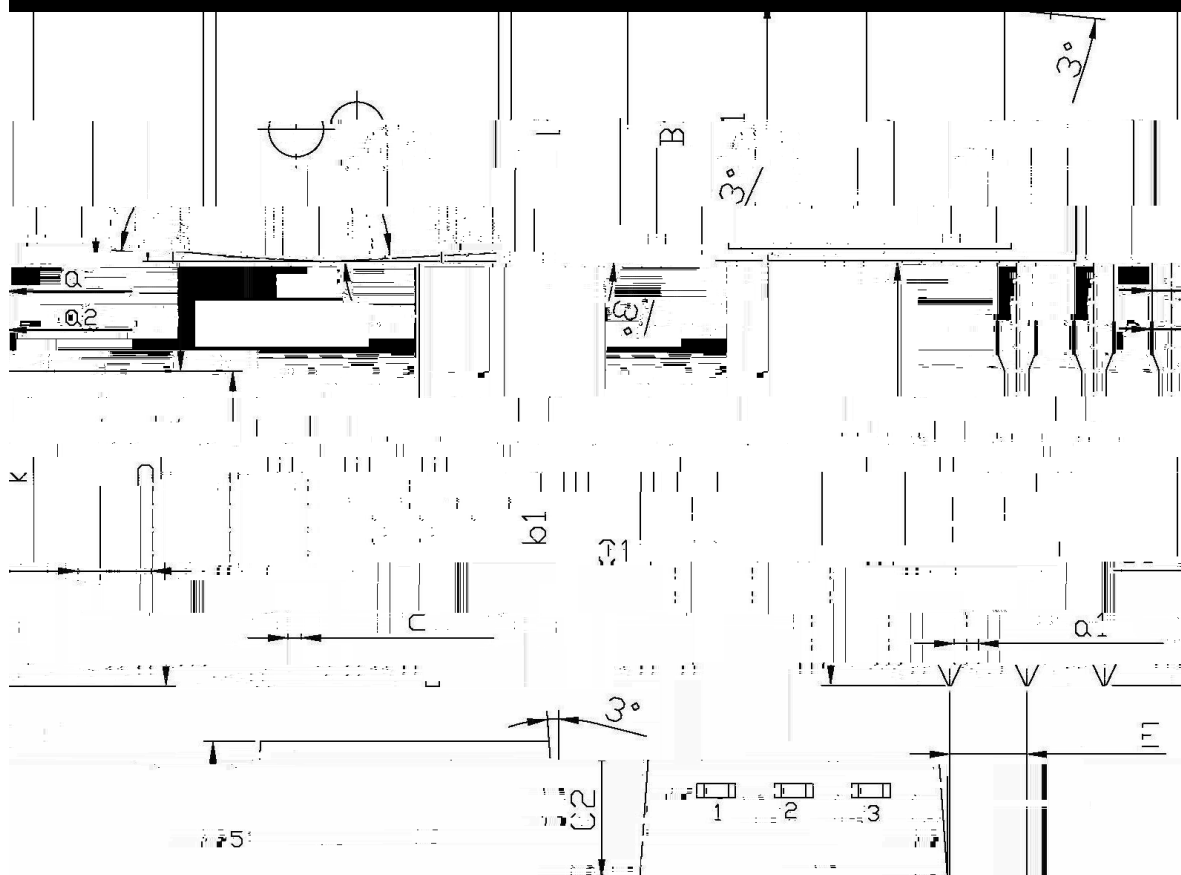
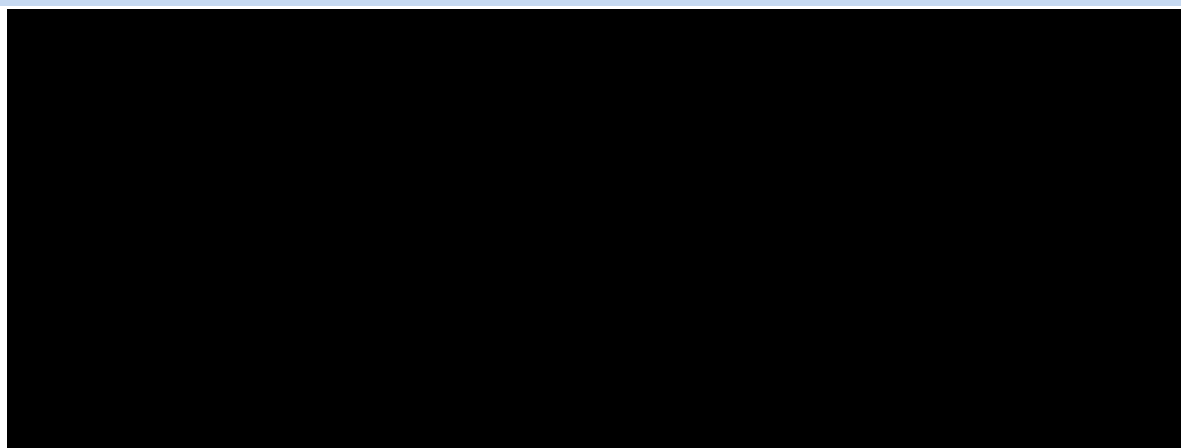
Parameter	Symbol	Rating	Unit
Voltage	V_{DS}	650	V
	$I_D(T_c=25^\circ\text{C})$	7.0	A
	$I_D(T_c=100^\circ\text{C})$	4.4	A
Pulsed	I_{DM}	28	A
Voltage	V_{GS}	± 30	V
avalanche Energy	E_{AS}	420	mJ
anche Energy	E_{AR}	14.7	mJ
	I_{AR}	7.0	A
	$P_D(T_c=25^\circ\text{C})$	147	W
Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

					Max	Unit
						V
					1.0	μA
					100	μA
					± 100	nA
					4.0	V
	$R_{DS(on)}$	$V_{GS}=10\text{V}$ $I_D=3.5\text{A}$			1.3	Ω
	g_{FS}	$V_{DS}=40\text{V}$ $I_D=3.5\text{A}$		8.2		S
	V_{SD}	$V_{GS}=0\text{V}$ $I_S=7.0\text{A}$			1.4	V
	C_{iss}			1100	1500	pF
Output Capacitance	C_{oss}	$V_{DS}=25\text{V}$ $V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		110	150	pF

/ Electrical Characteristic Curve

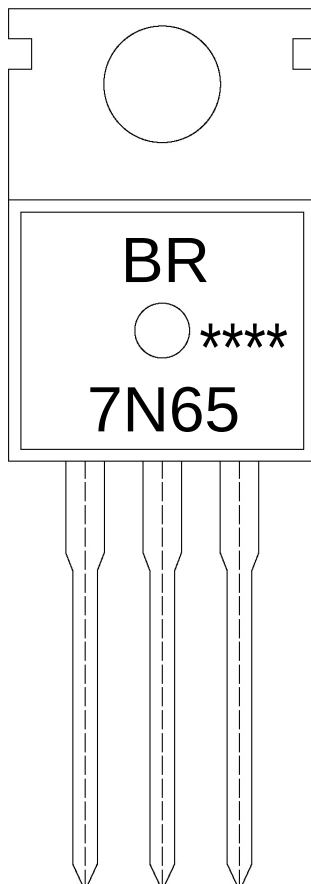


/ Package Dimensions



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
	9.8	10.2		12	14
	5.5	5.6		6.3	6.7
	9.4	15.7		9.0	9.2
	2.6	2.6		0.1	2.2
	0.9	9.6		0.7	0.7
	0.4	0.4		0.3	0.3
	0.7	0.7		0.2	1.45

/ Marking Instructions



BR

7N65

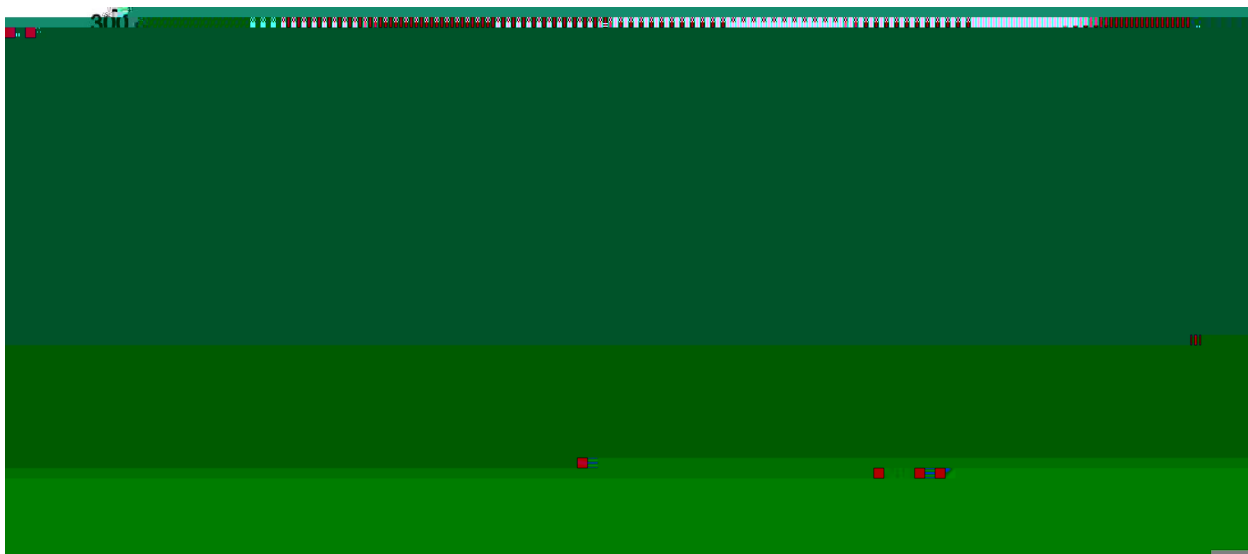
Note:

BR: Company Code

7N65: Product Type.

****: Lot No. Code, code change with Lot No.

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



Note:

1 25 150