

BRD50P06Q
Rev.A Sep.-2024



DATA SHEET

TO-252 .> // x P ?ú 3 MOS « | • 'ož
P-CHANNEL MOSFET in a TO-252 Plastic Package.

8*₉ u 4 k y > z k) x y 4 k • ¼ , † ½ k ... ` ' +) 7 ö Ö ä U ´ Å } L k —) í D } ož
Low $R_{DS(on)}$, low gate charge, low C_{rss}

@ f Parameter		... Z Symbol	f > Rating	% y Unit
Drain-Source Voltage		V _{DS}	-60	V
Drain Current		I _D (T _c =25)	-50	A
Drain Current - Pulsed		I _{DM}	-200	A
Gate-Source Voltage		V _{GS}	±20	V
Power Dissipation		P _D (T _c =25)	85	W
Single Pulsed Avalanche Energy		E _{AS}	250	mJ
Avalanche Current(L=0.5mH)		I _{AS}	25	A
Junction and Storage Temperature Range		T _j , T _{stg}	-55 to 150	-
Thermal resistance, junction - ambient	t 0 10s	R _{θJA}	25	/ W
	Steady-State		50	
Thermal resistance, junction - case	Steady-State	R _{θJC}	1.5	

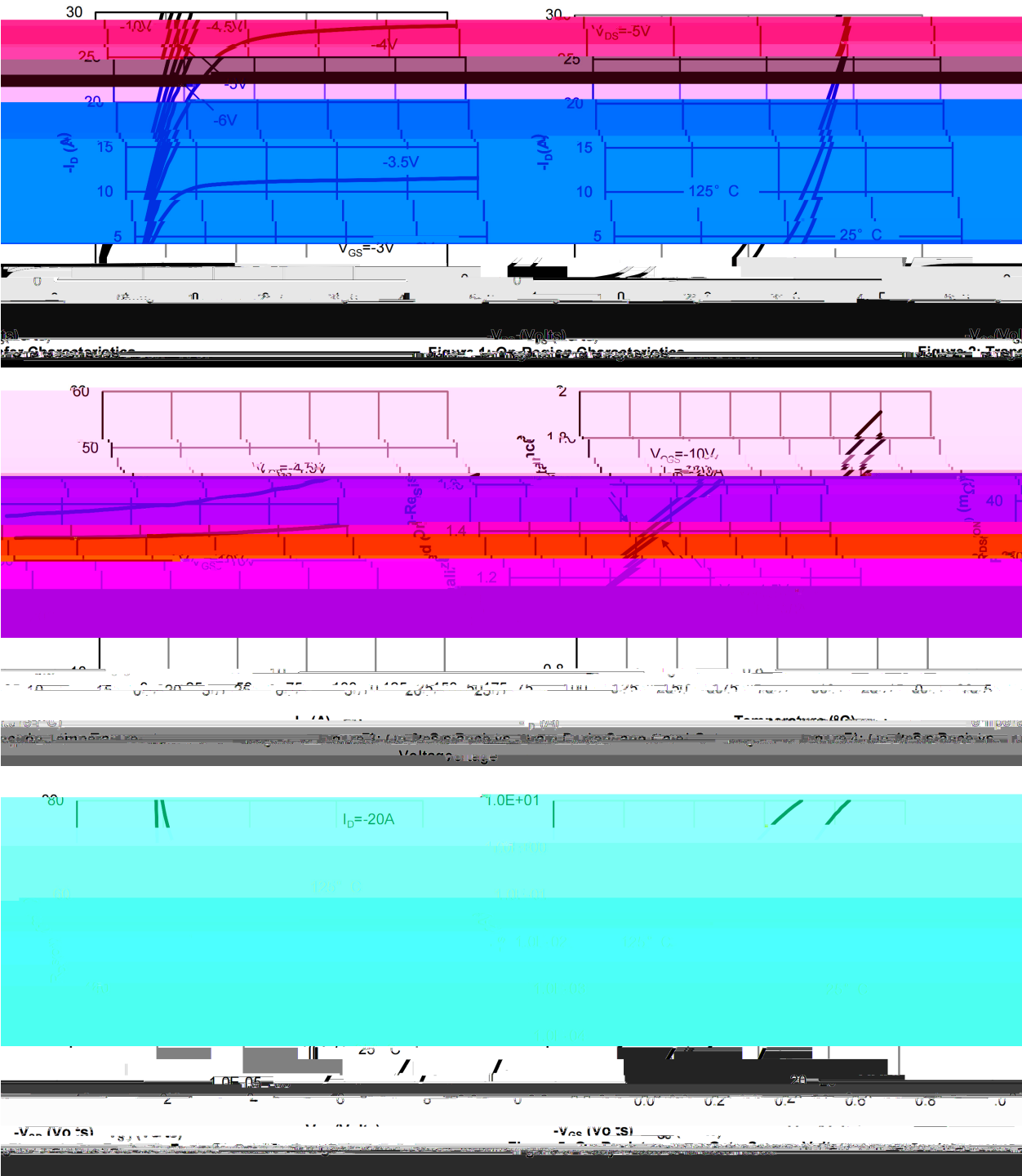
@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 > Min	Á ° > Typ	Â Ý > Max	% y Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250 A	-60	-68		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-60V V _{GS} =0V			-1.0	A
		V _{DS} =-48V T _C =150			-10	
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±0.1	A
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 A	SS/ 68	Steady-State	50V-68V at 3 4812981 JT18748-00a9	

BRD50P06Q
Rev.A Sep.-2024

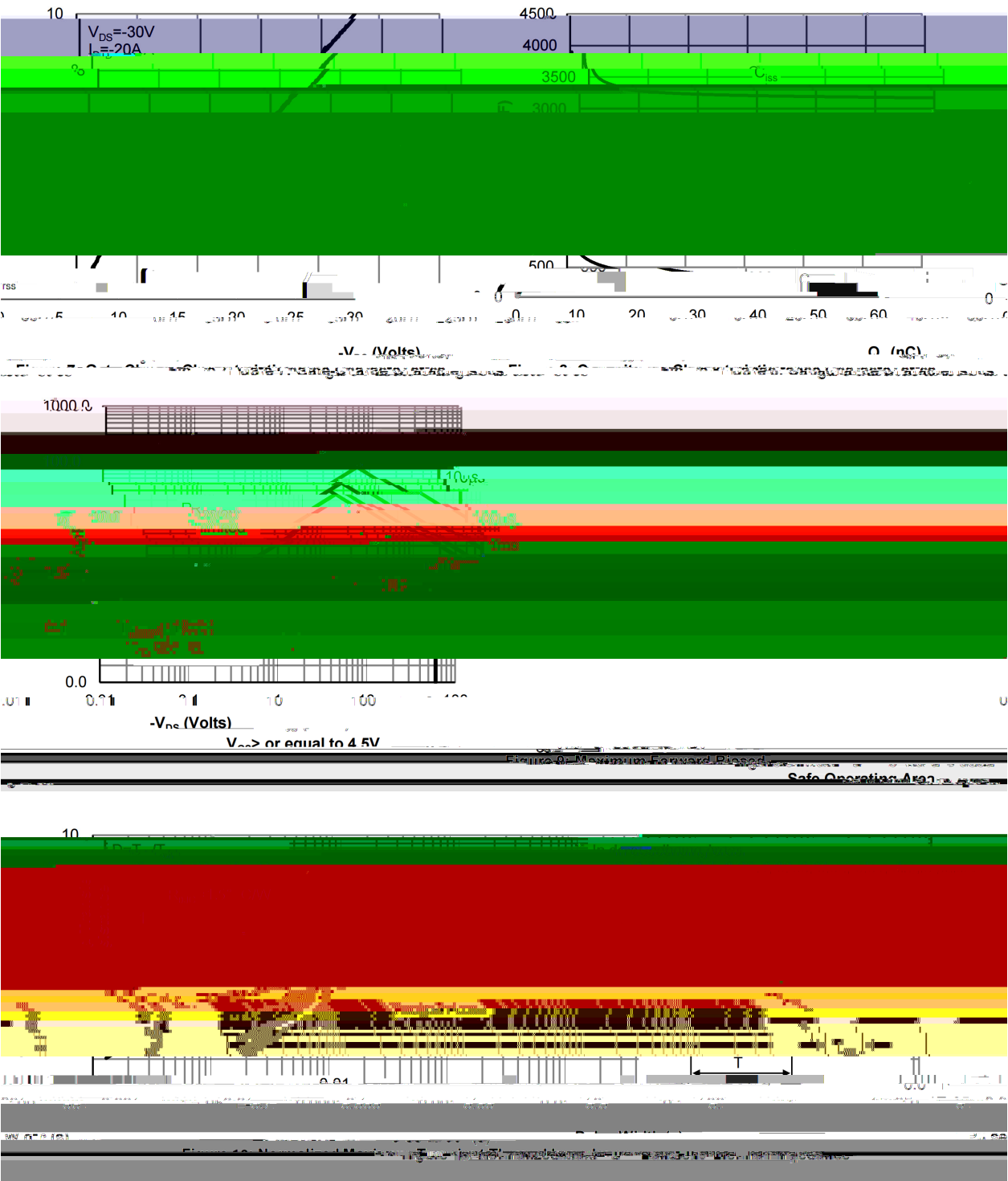


DATA SHEET

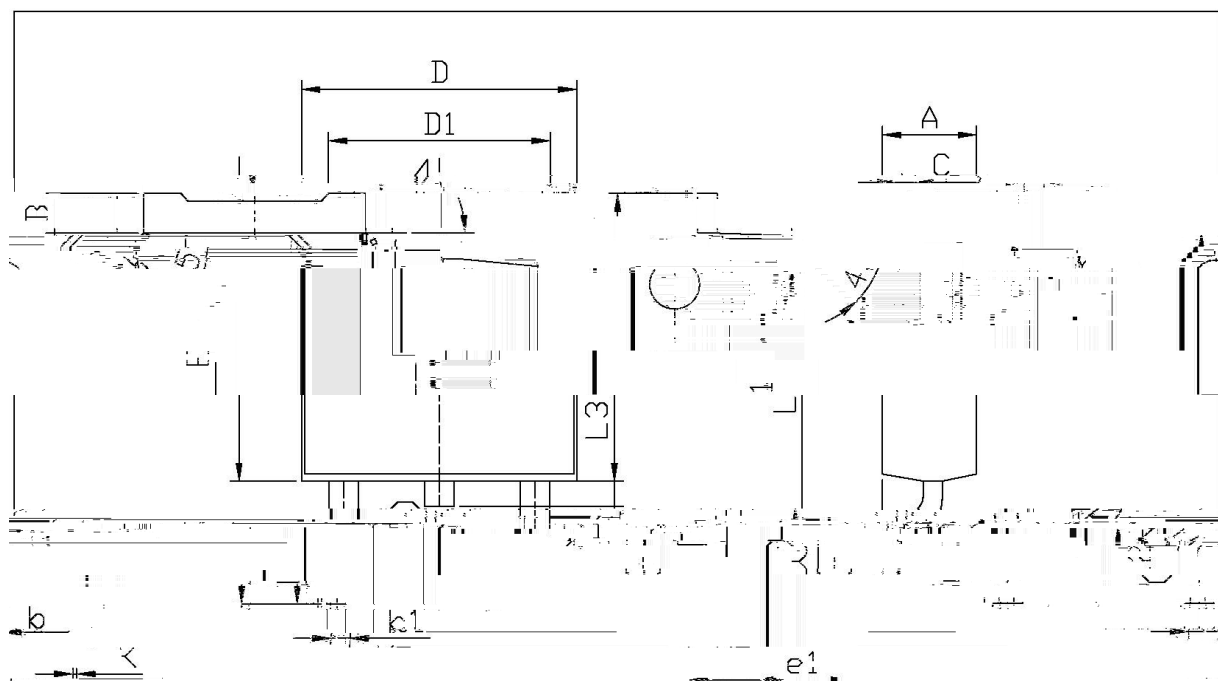
Electrical Characteristic Curve



Electrical Characteristic Curve



Ø α =) ¢ / Package Dimensions

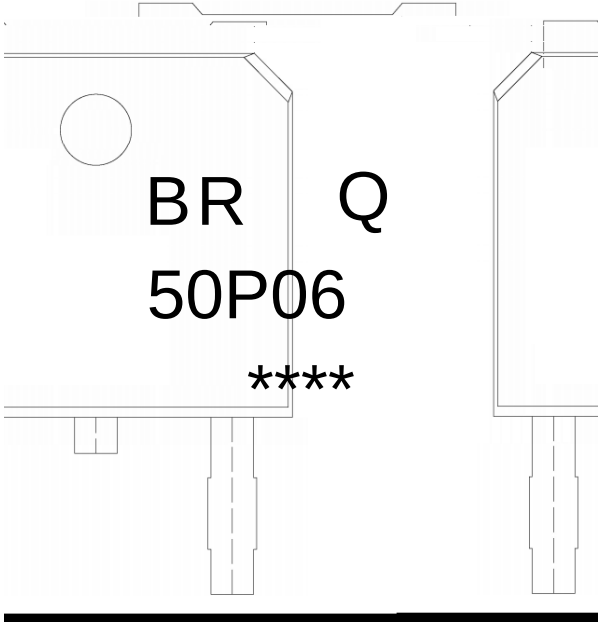


单位: mm

Figure 1 displays 12 histograms showing the probability distribution of the number of nodes in the network. The histograms are arranged in a 4x3 grid. The top row shows the distribution for the number of nodes (N) with labels 'Min', 'Max', and 'Mean' for each of the three columns. The second row shows the distribution for the number of nodes (N) with labels 'Min', 'Max', and 'Mean' for each of the three columns. The third row shows the distribution for the number of nodes (N) with labels 'Min', 'Max', and 'Mean' for each of the three columns. The bottom row shows the distribution for the number of nodes (N) with labels 'Min', 'Max', and 'Mean' for each of the three columns. The x-axis for all histograms is 'Number of nodes' and the y-axis is 'Probability'.

T0-252

, M y f / Marking Instructions



a ¢ y	
BR y	, [W A
Q y	V ñ —)í D } ö œ
6 y	° Z W A
y	ÿ D Z W A k š Ÿ D Z J
Note:	
BR:	Company Code
Q:	Automobile halogen-free product Code
50P06:	Product Type Code
****:	Lot No. Code, code change with Lot No

šWD t...•Ž¢ (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

- a ¢ y

10• Ä ½ “ † 150 ½200 - k ž • 60 ½120sec;

20• Q > “ † 255 r5 - k ž • 4 Ò 5 r0.5sec;

30•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~200 - , Time:60~120sec.

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

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

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

“ † y 260 r5 - ž • y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û H					Dimension ;>û p . (unit /mm³)		
	Units/Reel /-	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Boxç
TO-252	2,e/-252	2,e/-252	2,w [(	)-7.5((unit)]TJ /TT7		1	Tf -7.5001	-1.8343

TD.84