

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	

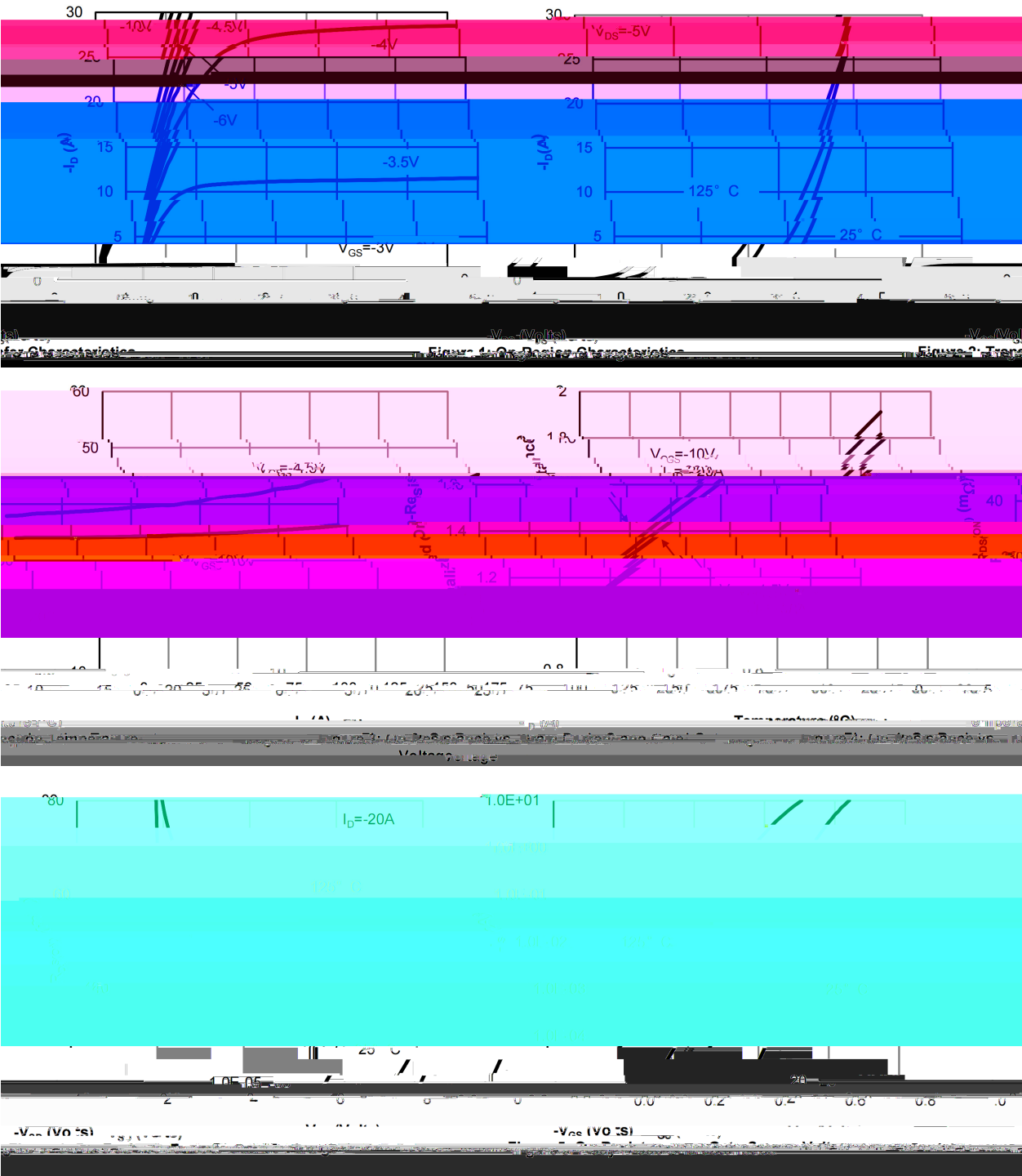
@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 > Min	Á ° > Typ	Â Ý > Max	% y Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250 A	-60	-68		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-60V V _{GS} =0V			-1.0	A
		V _{DS} =-48V T _C =150			-10	
Gate-Body Leakage Current 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 48V-68V	18748-00a9

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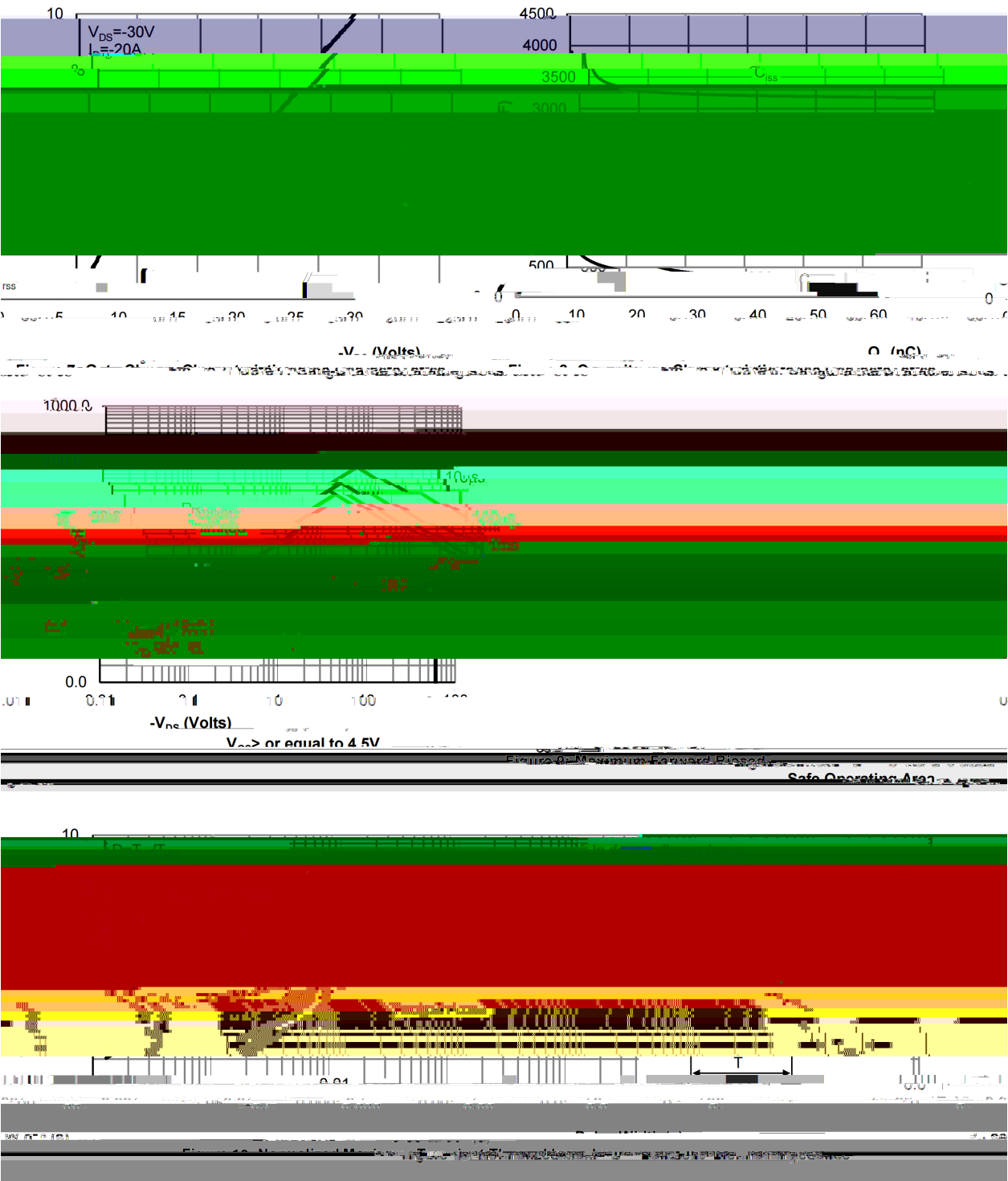


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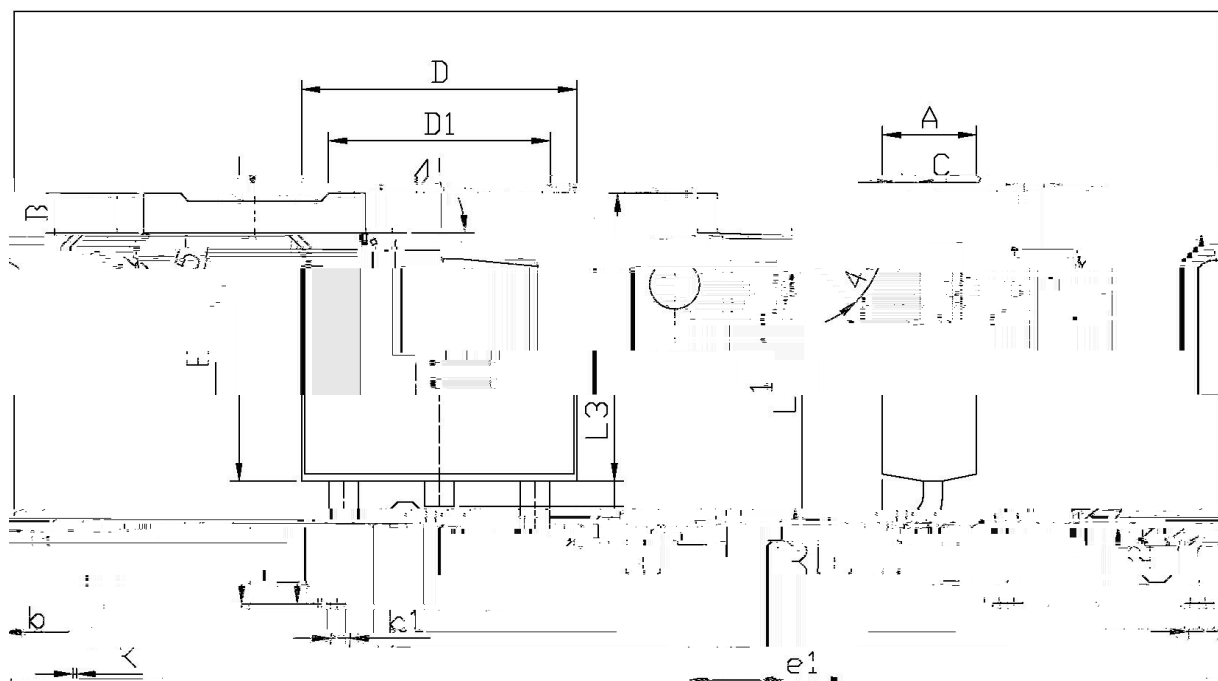
Electrical Characteristic Curve



Electrical Characteristic Curve



Ø α =) ¢ / Package Dimensions

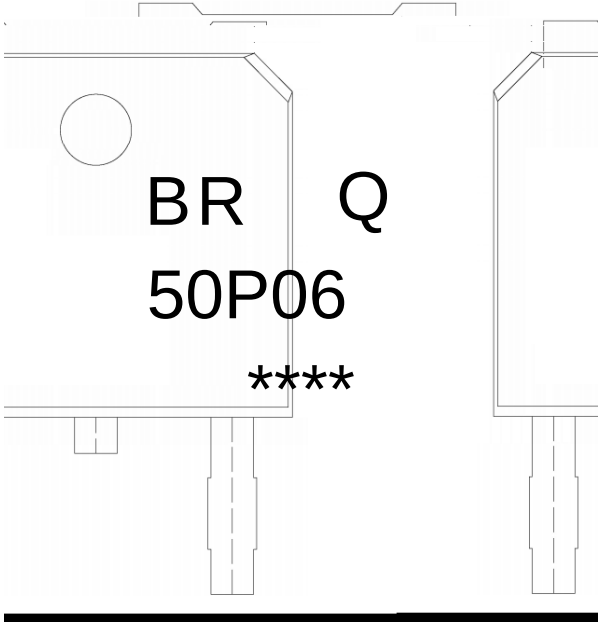


单位: mm

[illegible]

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 8KL RU] 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