5 é / Descriptions

SOT23-3 .> / / x N 3 MOS « | • ’ož

4- CHANNEL MOSFET in a SOT23-3 Plastic Package.

¤ ª / Features

V_{DS} (V) = 30V

I_D = 5.5 A (V_{GS} = 20V)

$R_{DS(ON)}$ < 31m (VGS = 10V)

$R_{DS(ON)}$ < 43m (VGS = 4.5V)

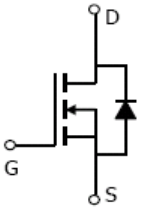
… ` AEC-Q101 ö Õ ä U ´ Å } L k —)í D }ož Qualified to AEC-Q101 Standards for High Reliability, HF Product.

Ð ÷ / Applications

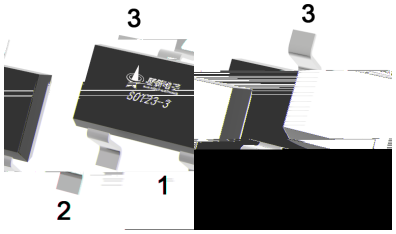
9 • ¿ ú • ¼ ê ! ² ò • k á V ñ • } Lož

This device is suitable for use as a load switch or in PWM applications, Meet the stringent requirements of automotive applications.

Ã W] Ô · / Equivalent Circuit



• Û - æ / Pinning



PIN1 y G PIN 2 y S PIN 3 y D

, M V / Marking

Marking	B4Q

@ *f* Parameter	… Z Symbol	*f* › Rating	% y Unit
Drain-Source Voltage	V_{DS}	30	V
Drain Current – Continuous	I_D	5.5	A
Pulsed Drain Current	I_{DM}	19	A
Gate-Source Voltage	V_{GS}		

Ô ? d • Ž ¢ / Electrical Characteristic Curve

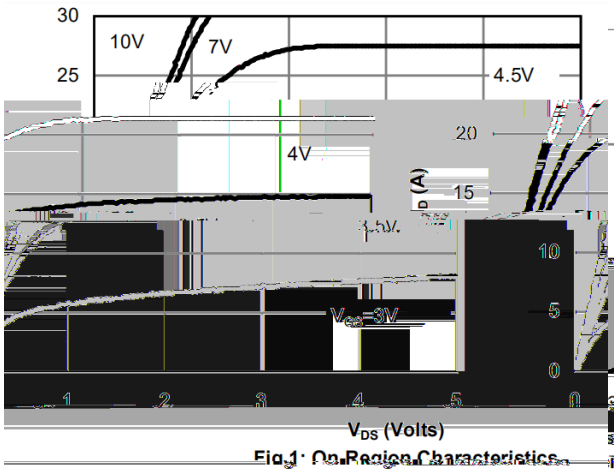


Fig.1 On-Region Characteristics

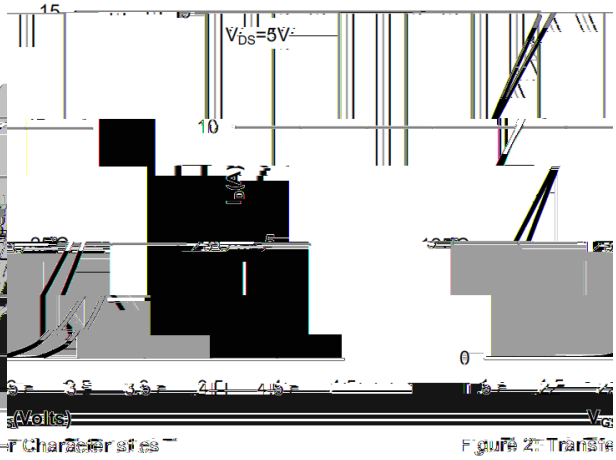
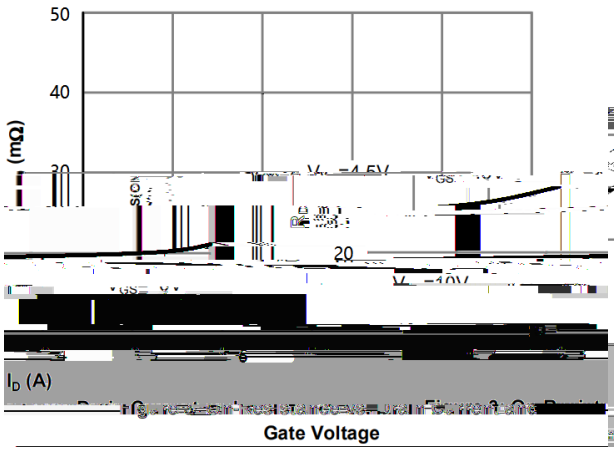
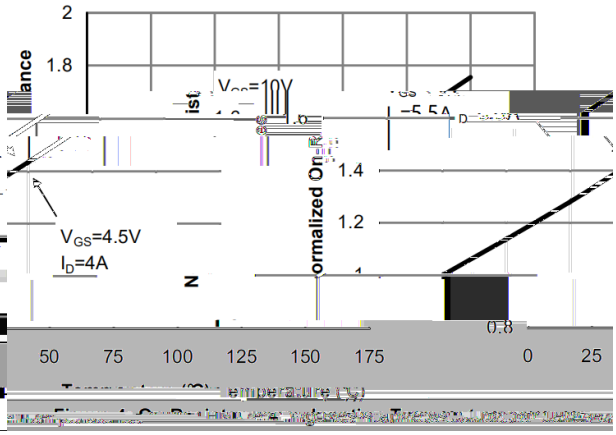
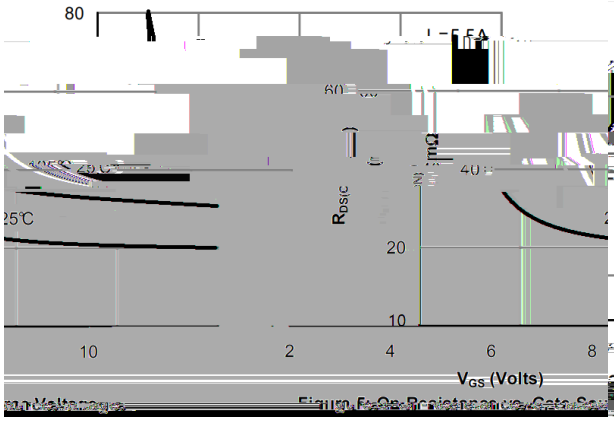


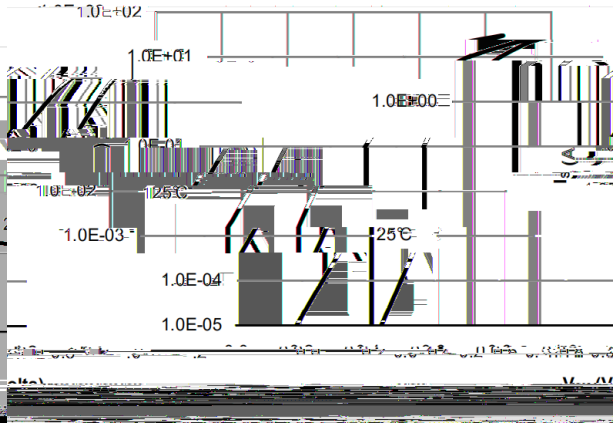
Figure 2: Transfe



Gate Voltage







Ô ? d • Ž ¢ / Electrical Characteristic Curve

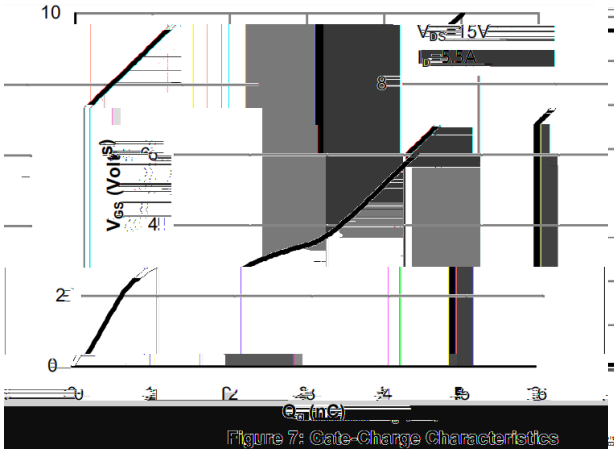
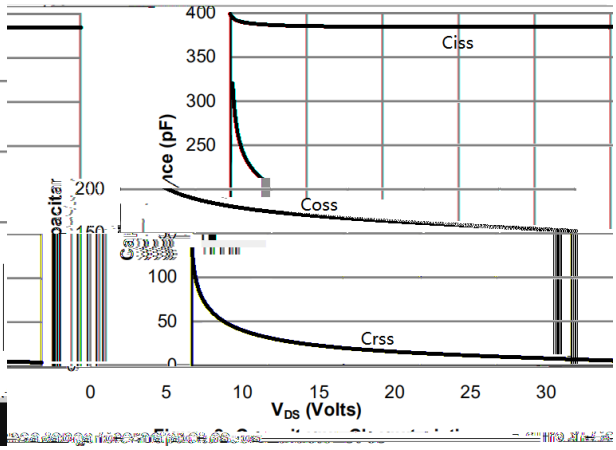


Figure 7: Gate-Charge Characteristics



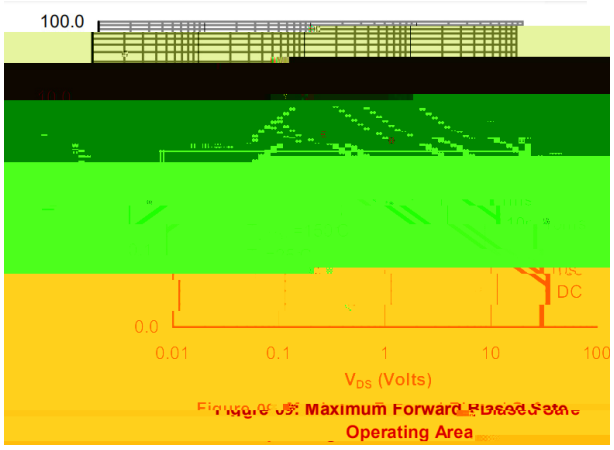


Figure 8: Maximum Forward Biased Safe Operating Area

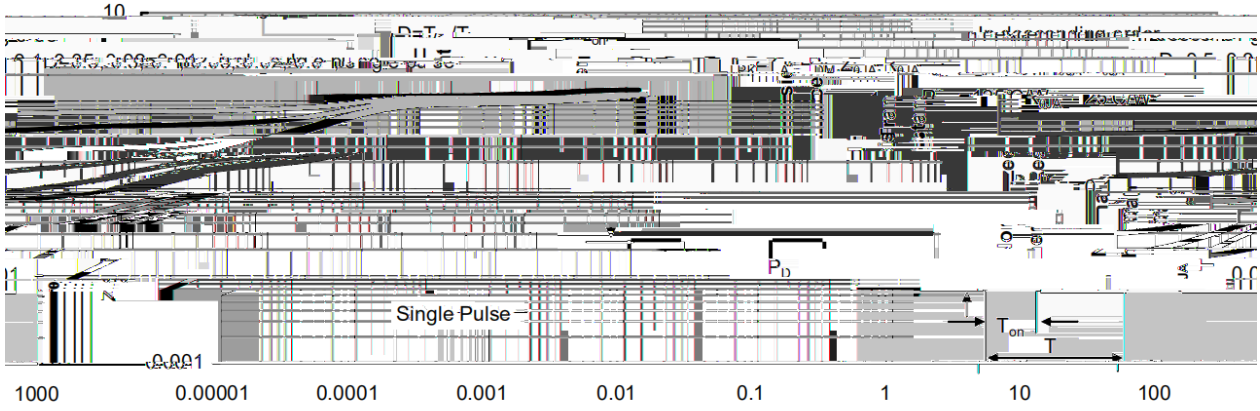
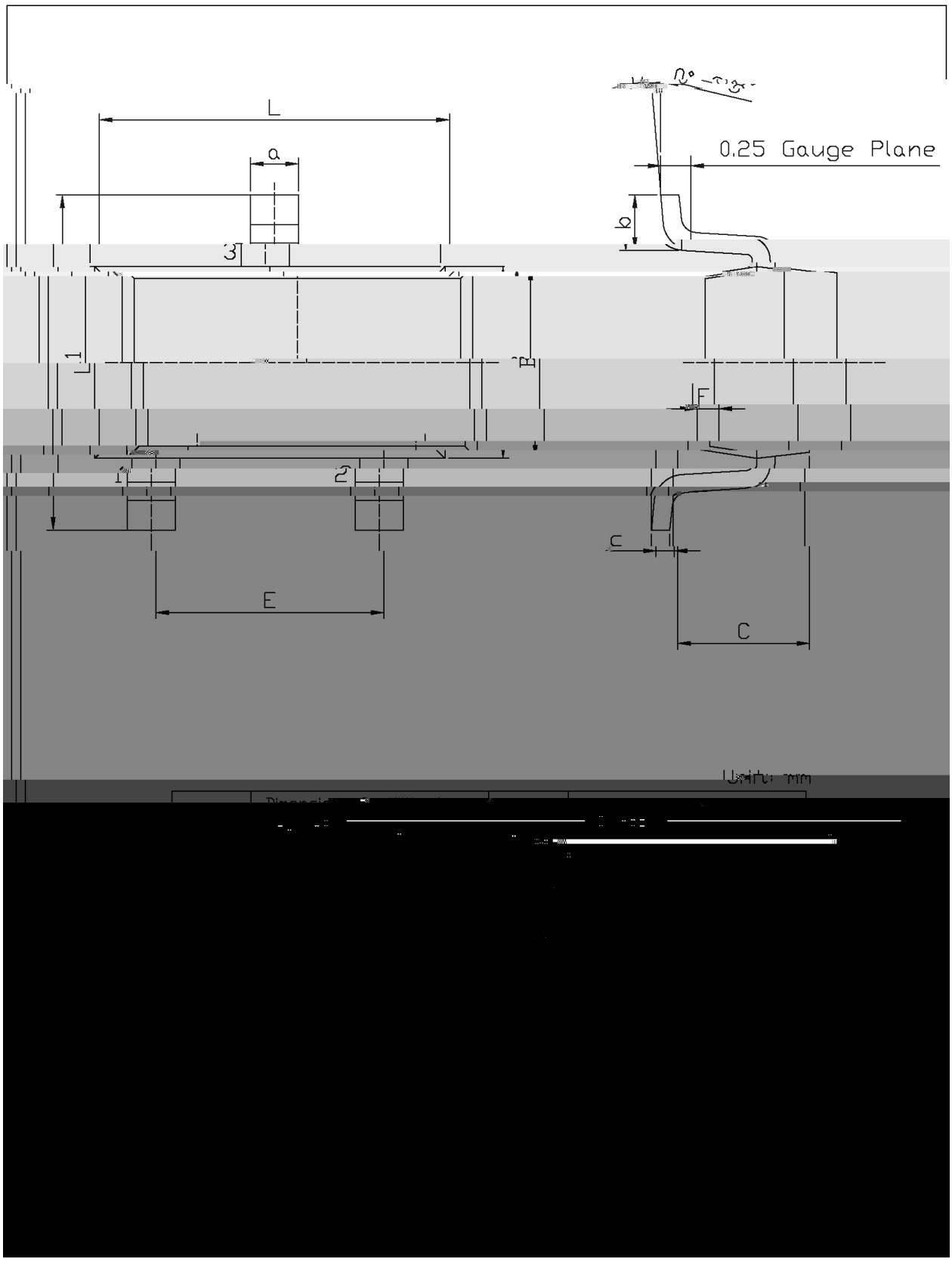
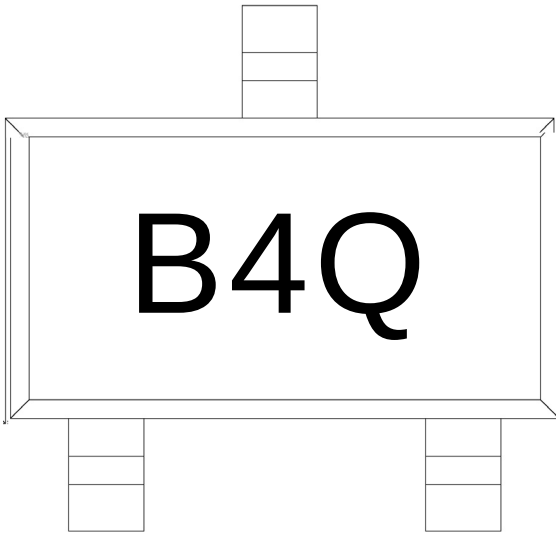


Figure 10: Normalized Maximum Transient Thermal Impedance

Ø ¤ =) ¢ / Package Dimensions



, M y ƒ / Marking Instructions



ª ¢ y

(y º Z W A

7 y V ñ —)í D } ö œ

Note:

B4: Product Type Code

Q: Automobile halogen-free product Code

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 ½200 - k ž • 60 ½120sec;

2o• Q › “ † 255 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

2.Peak Temp.:255 r 5 - , Duration:5 r 0.5sec.

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

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

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

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SOT23-3	3,000	10	30,000	4	120,000	7 s ×8	2 10×205×205	445×230×435