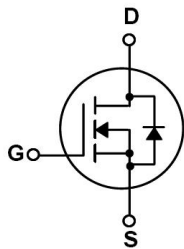
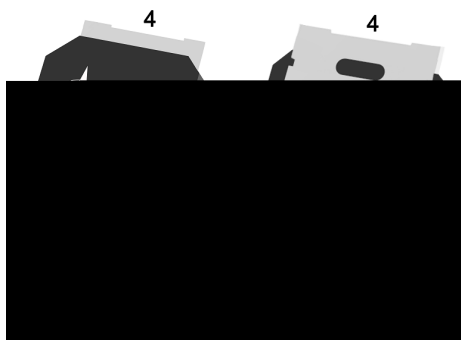


TO-252 N
 N-CHANNEL MOSFET in a TO-252 Plastic Package.

$R_{DS(on)}$ C_{rss} AEC-Q101
 Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

DC/DC

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products, Meet the stringent requirements of automotive applications.



PIN1 G PIN 2 D PIN 3 S PIN 4 D

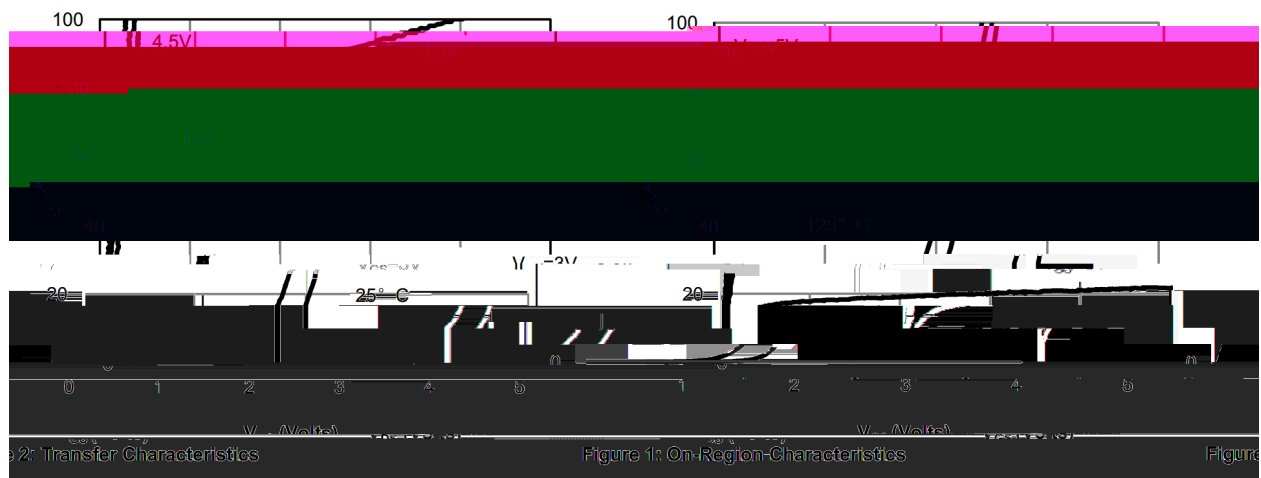
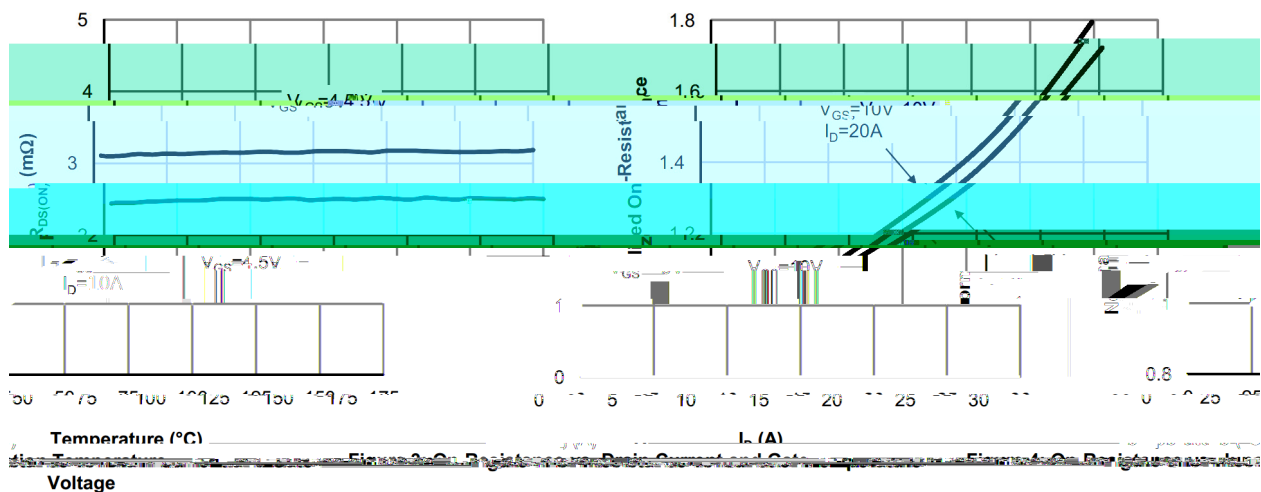
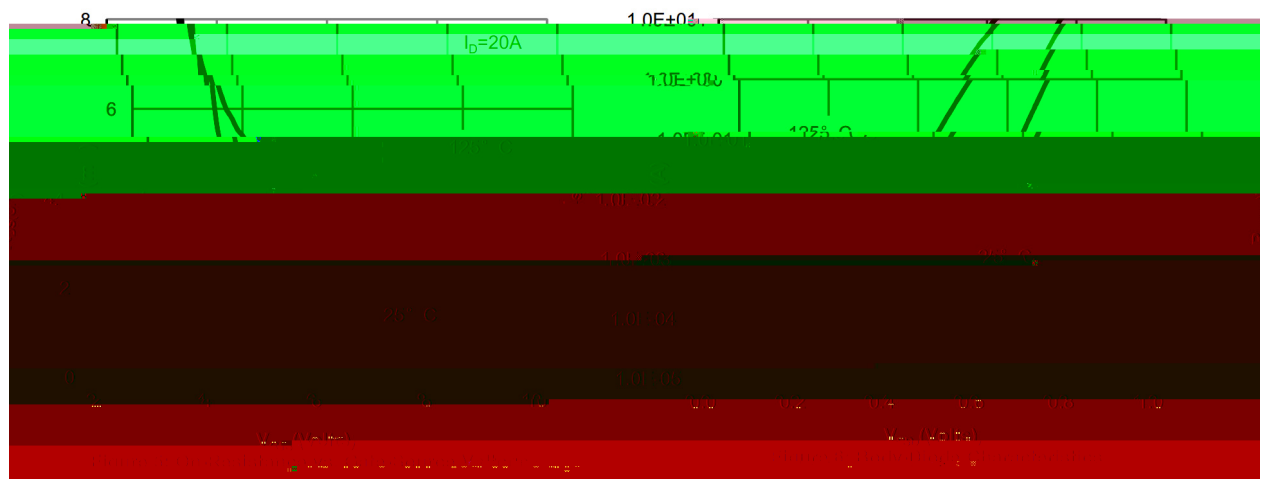
See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	40	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	150	A
Drain Current - Pulsed		I_{DM}	304	A
Gate-Source Voltage		V_{GS}	± 20	V
Avalanche Current		I_{AS}	33	A
Single Pulsed Avalanche Energy(L=0.5mH)		E_{AS}	435	mJ
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	120	W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	20	/W
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	1.04	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	40			V
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.0	1.7	2.5	V

Static Drain-Source

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Tu.0037 Twp4 3ditions						



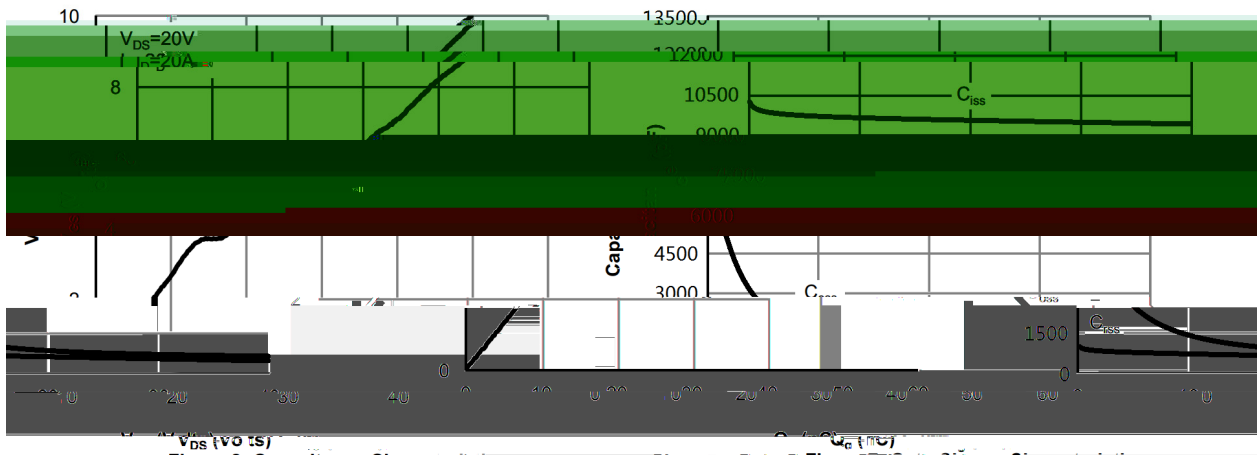


Figure 8: Capacitance Characteristics Figure 7: Gate-Charge Characteristics

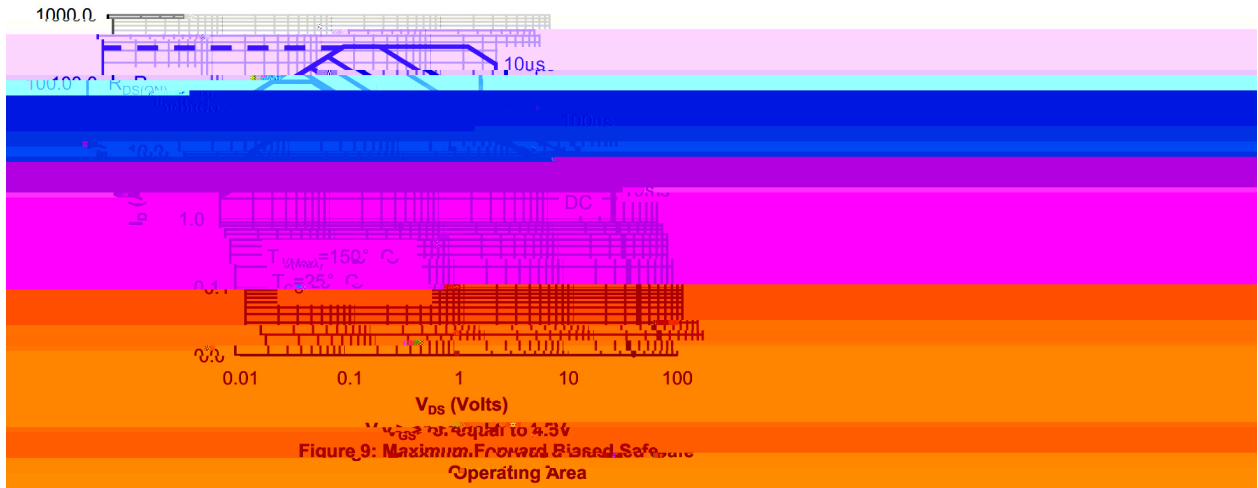


Figure 9: Maximum Forward Bias Safe Operating Area

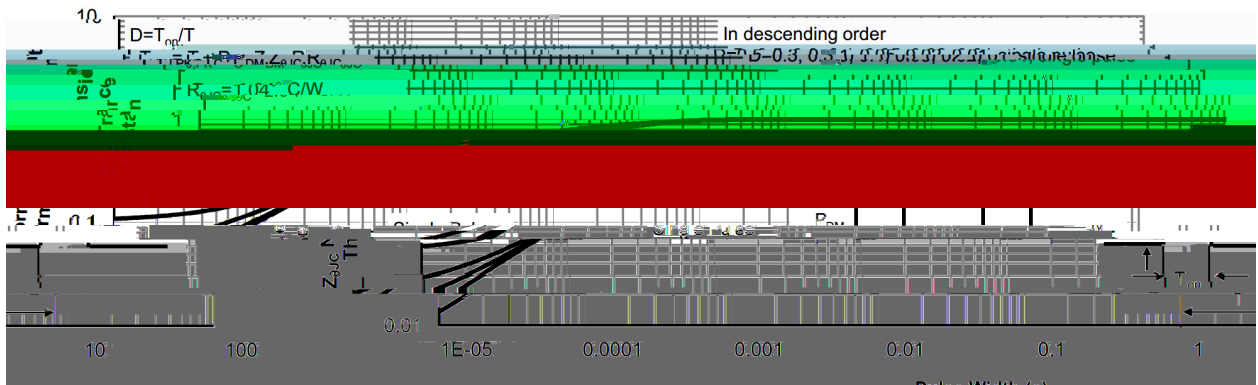
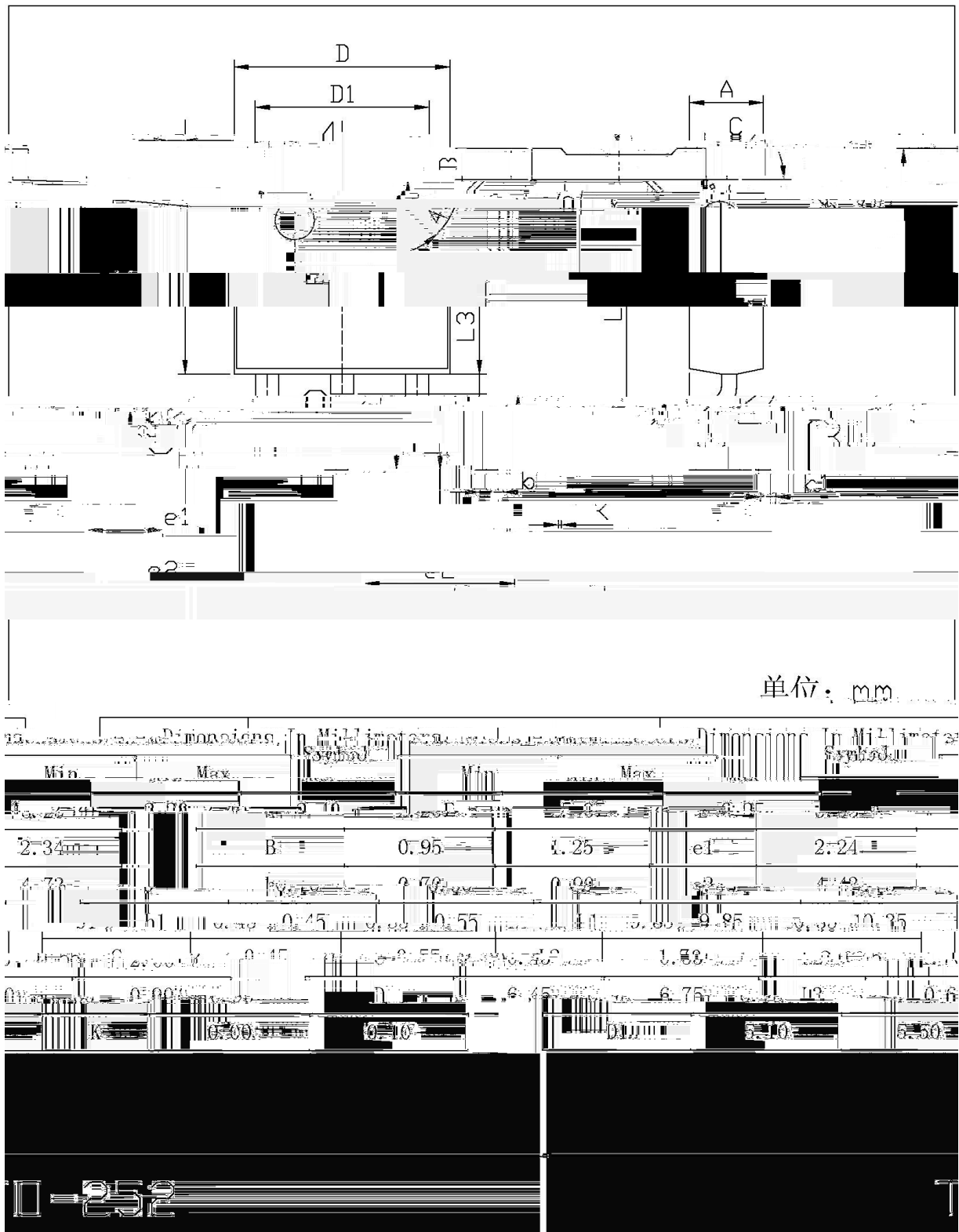
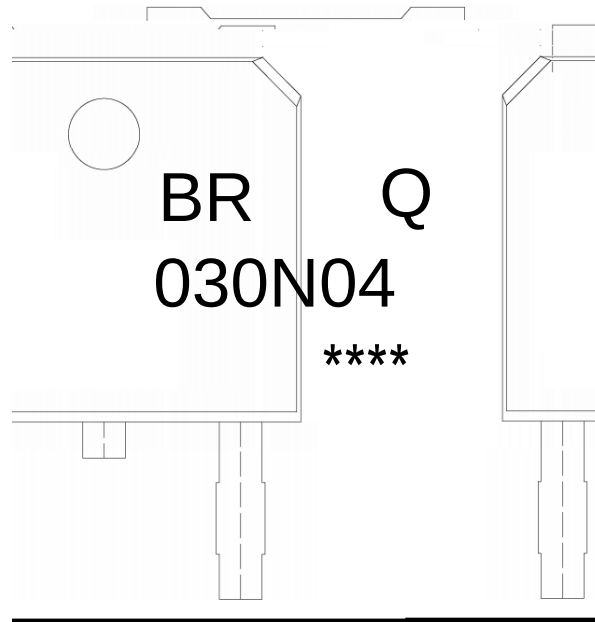


Figure 10: Thermal Impedance Characteristics





BR

Q

030N04

Note:

BR: Company Code

Q: Automobile halogen-free product Code

030N04: Product Type Code

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

Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL