TO-263 N

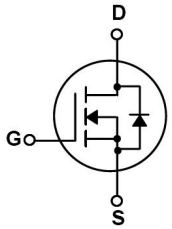
N-CHANNEL MOSFET in a TO-263 Plastic Package.

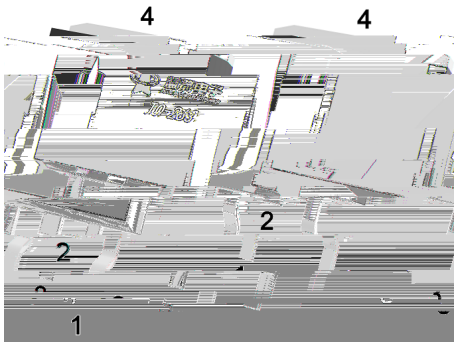
H / DHF0T434

Ulwud Lrw Rq0Uhvlvwdqfh/idvw vwlwfklqj/ Txdllilhg wr DHF0T434 Vwdqgdugv iru Hljk Uhlldelllwy/ HI Surgxfw1

SIF

These devices are well suited for high efficient switched mode power supplies Active power factor correction, electronic lamp ballast based on half bridge topology, Meet the stringent requirements of automotive applications.





PIN1 G PIN 2 4 D PIN 3 S

Parameter		N Symbol	Rating	Ң Unit
Drain-Source Voltage		V_{DSS}	40	V
Drain Current		I_D(Tc=25)	196	A
Pulsed Drain Current		I_{DM}	500	A
Gate-Source Voltage		V_{GS}	±20	V
Single Pulsed Avalanche Energy(L=0.5mH)		E_{AS}	561.8	mJ
Avalanche Current		I_{AS}	26.5	A
Total Power Dissipation		P_D(Tc=25)	347	W
Junction and Storage Temperature Range		T_J,T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	t ≤ 10s	$R_{\theta JA}$	15	/W
	Steady-State		60	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	0.36	

A

Parameter	N Symbol	Test Conditions		Min	Typ	Max	Ң Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V	I_D=250μA	40			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=40V	V_{GS}=0V			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V	V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=250μA	1	1.7	3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V	I_D=20A		4.5	5	mΩ
		V_{GS}=4.5V	I_D=10A		7	10	
Forward On Voltage	V_{SD}	V_{GS}=0V	I_S=1A			1.2	V
Gate resistance	R_g	f=1MHz			2.3		Ω
Input Capacitance	C_{iss}	V_{DS}=25V f=1MHz	V_{GS}=0V		2950		pF
Output Capacitance	C_{oss}				210		
Reverse Transfer Capacitance	C_{rss}				190		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g(10V)	V_{GS}=10V V_{DS}=20V I_D=20A		70		nC
Total Gate Charge	Q_g(4.5V)			15		
Gate Source Charge	Q_{gs}			15		
Gate Drain Charge	Q_{gd}			22		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=20V R_L=1Ω R_{GEN}=3Ω		15		ns
Turn-On Rise Time	t_r			30		
Turn-Off Delay Time	$t_{d(off)}$			54		
Turn-Off Fall Time	t_f			20		

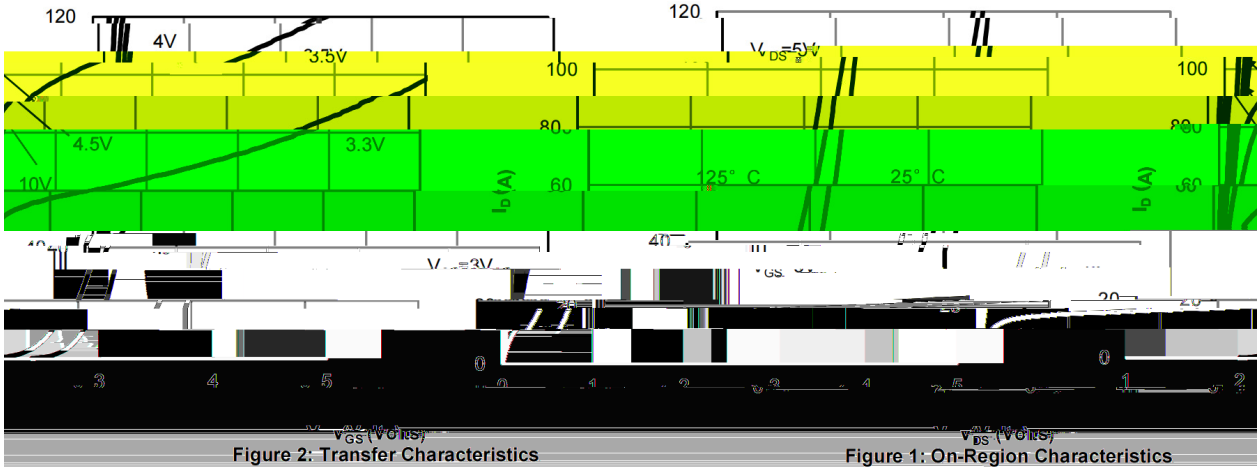
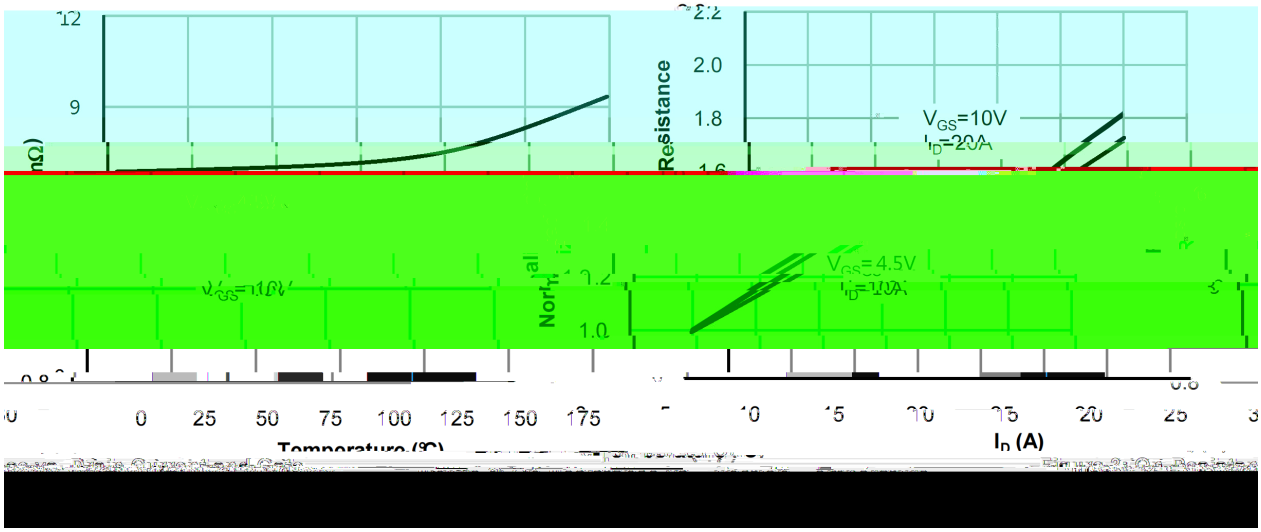
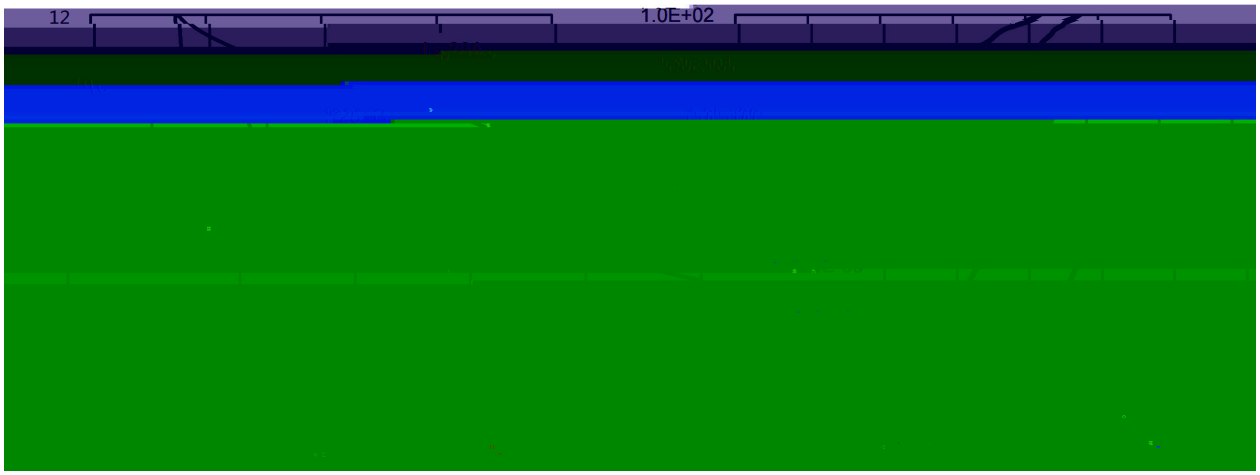
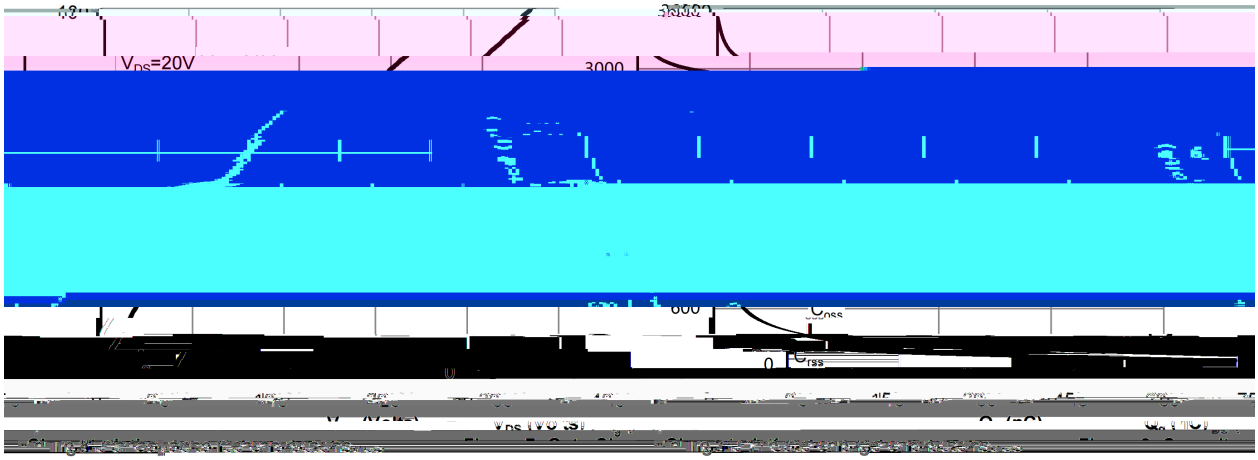


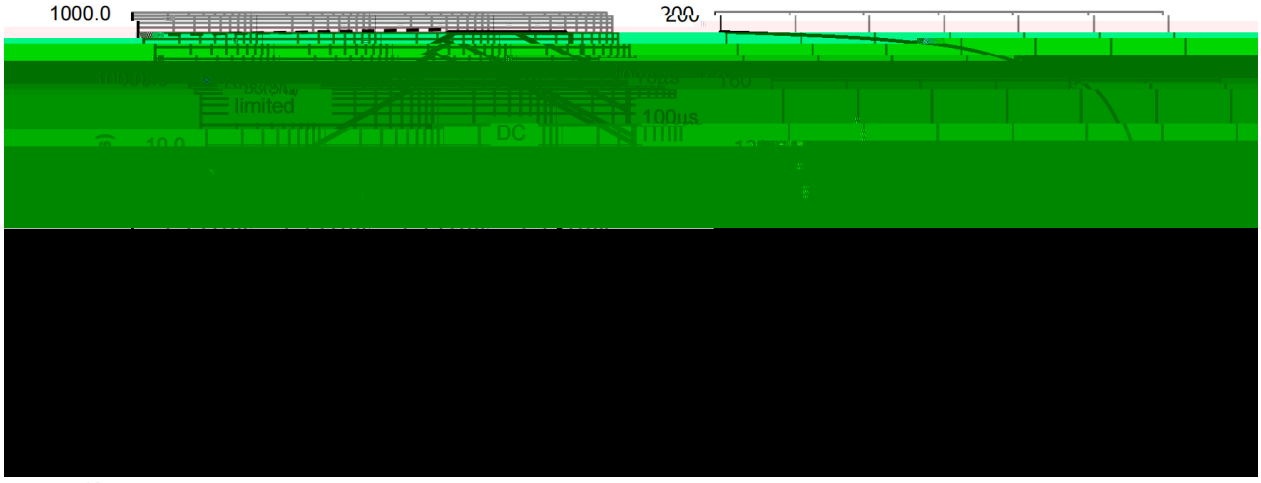
Figure 2: Transfer Characteristics

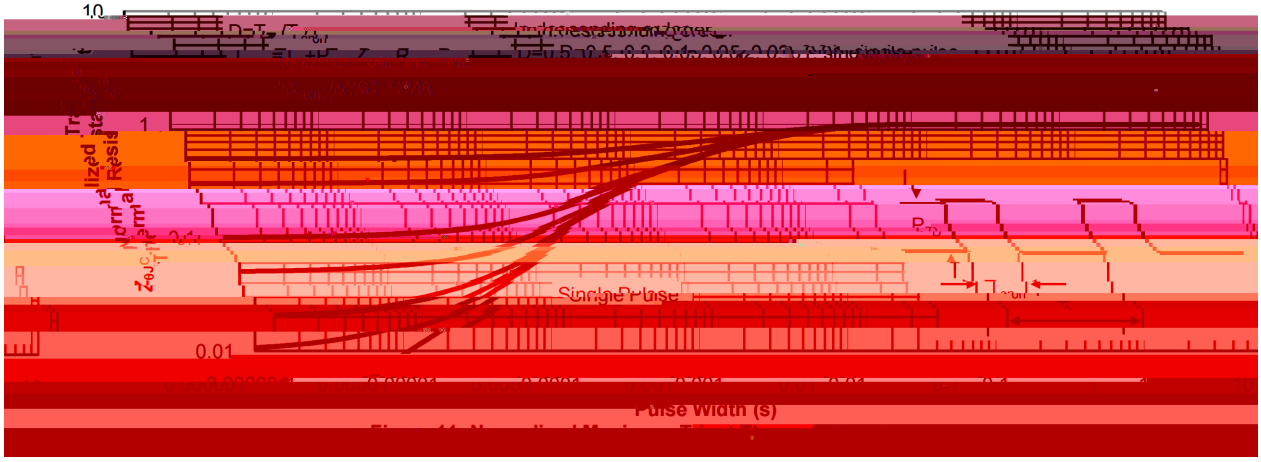
Figure 1: On-Region Characteristics

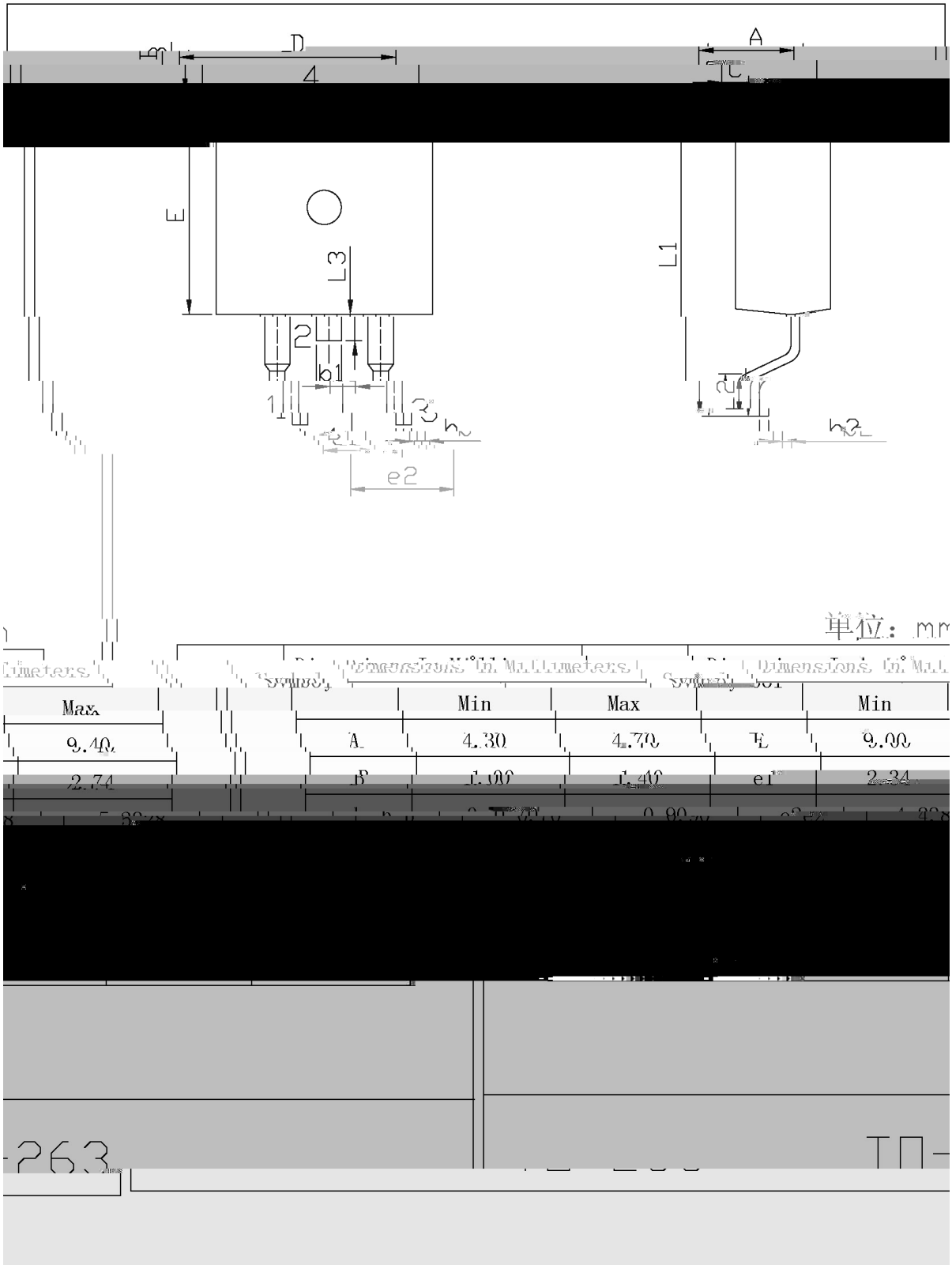


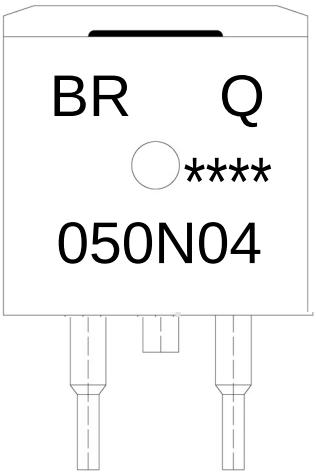



V_{DS}=20V
3000
600
C_{oss}
C_{rss}
0


1000.0
200
limited
DC
100μs


10
1
0.01
Single Pulse
Pulse Width (s)


D
A
E
L3
L1
b1
e2
单位：mm
Max
Min
Max
Min
A
4.30
4.70
9.00
2.74
1.00
1.40
e1
2.34



EU	坏	И
Q	坏	
383Q37	坏	N
****	坏	N N

Note:

BR:	Company Code
Q:	Automobile halogen-free product Code
050N04:	Product Type
****:	Lot No. Code, code change with Lot No