/ Absolute Maximum Ratings(Ta=25)

Parameter	ㄱ N Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-40	V
Gate-Source Voltage	V_{GSS}	±20	V
Continuous Drain Current	I_D (T_a=25°C)	-10	A
Continuous Drain Current	I_D (T_a=70°C)	-8	A
Power Dissipation for Single Operation	P_D (T_a=25)	1.7	W
Power Dissipation for Single Operation	P_D (T_a=70)	1.1	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$ ε t 10s ζ	40	/W
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	75	/W
Maximum Junction-to-Lead	$R_{\theta JL}$	24	/W

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=-250μA	V_{GS}=0V	-40			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-40V	V_{GS}=0V			-1.0	μA
		V_{DS}=-40V, T_J=55°C	V_{GS}=0V			-5.0	
Gate-Body leakage current	I_{GSS}	V_{DS}=0V	V_{GS}=±20V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=-250μA	-1.2	-1.6	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V	I_D=-10A		13.1	15	mΩ
		V_{GS}=-4.5V	I_D=-7A		18	21	
Forward Transconductance	g_{FS}	V_{DS}=-5V	I_D=-10A		9.5		S
Diode Forward Voltage	V_{SD}	I_S=-1A	V_{GS}=0V		-0.8	-1.0	V
Total Gate Charge	Q_g(10V)	V_{GS}=-10V, I_D=-10A	V_{DS}=-20V		42	55	nC
Total Gate Charge	Q_g(4.5V)				18.6		
Gate-Source Charge	Q_{gs}				7		
Gate-Drain Charge	Q_{gd}				8.6		
Gate Resistance	R_g	V_{GS}=0Ganso4VDS3-20V0025 Tc(GS)Tj8 0 VT					μ Diode

/ Electrical Characteristic Curve

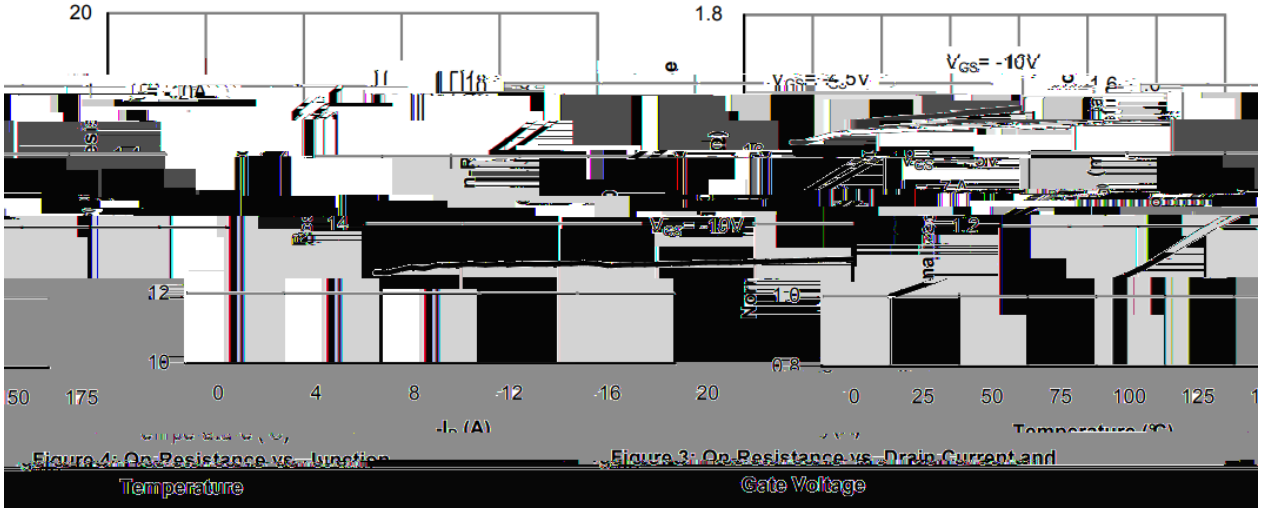
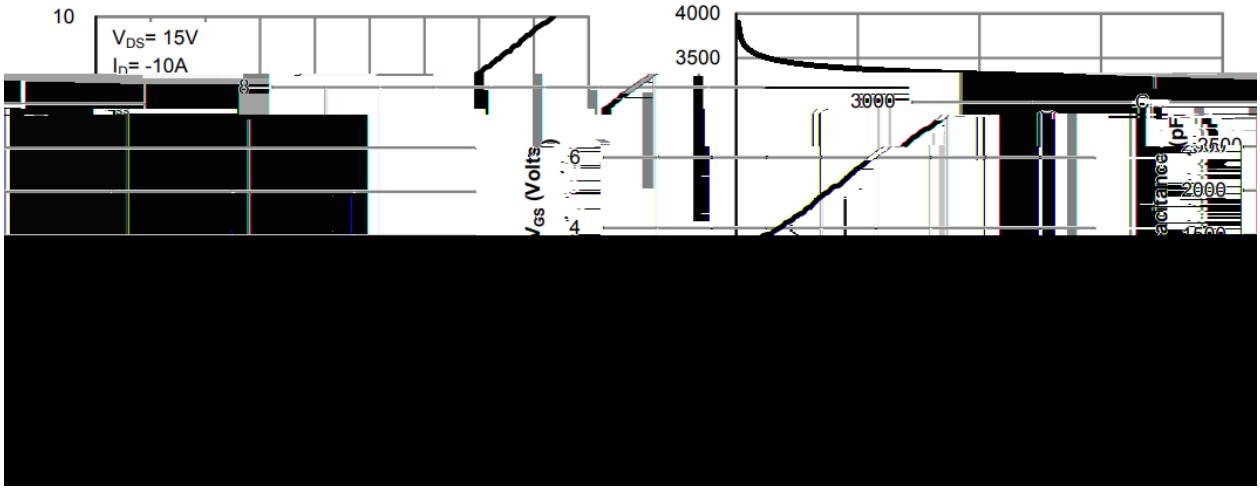


Figure 4: On-Resistance vs. Junction Temperature

Figure 3: On-Resistance vs. Drain Current and Gate Voltage

/ Electrical Characteristic Curve



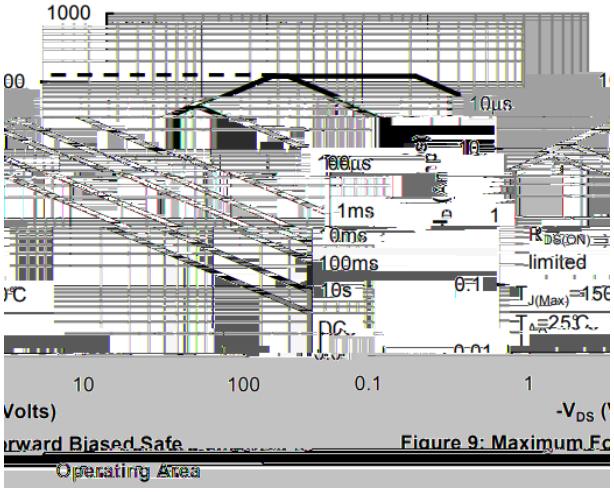
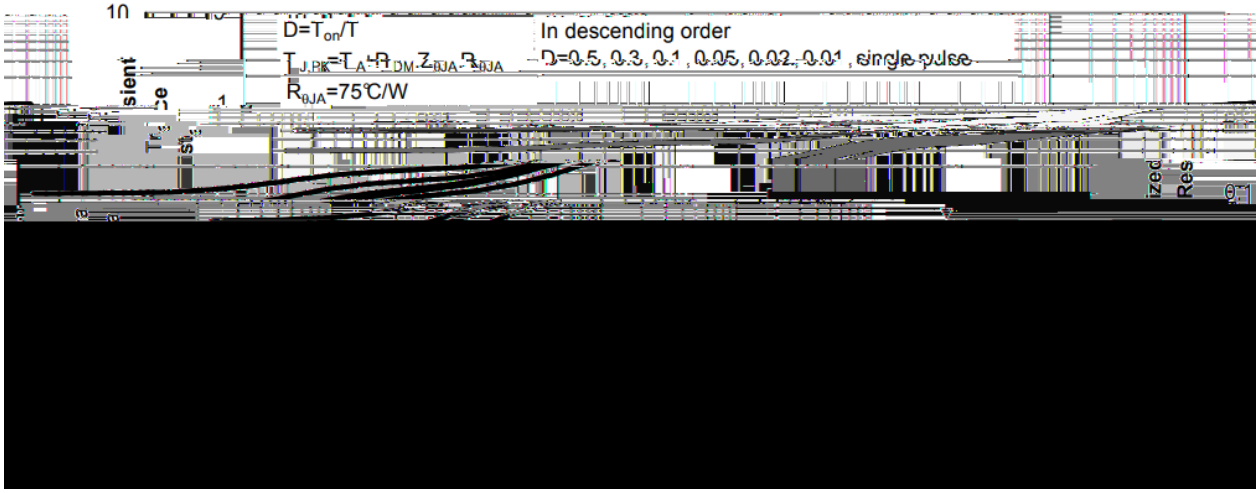
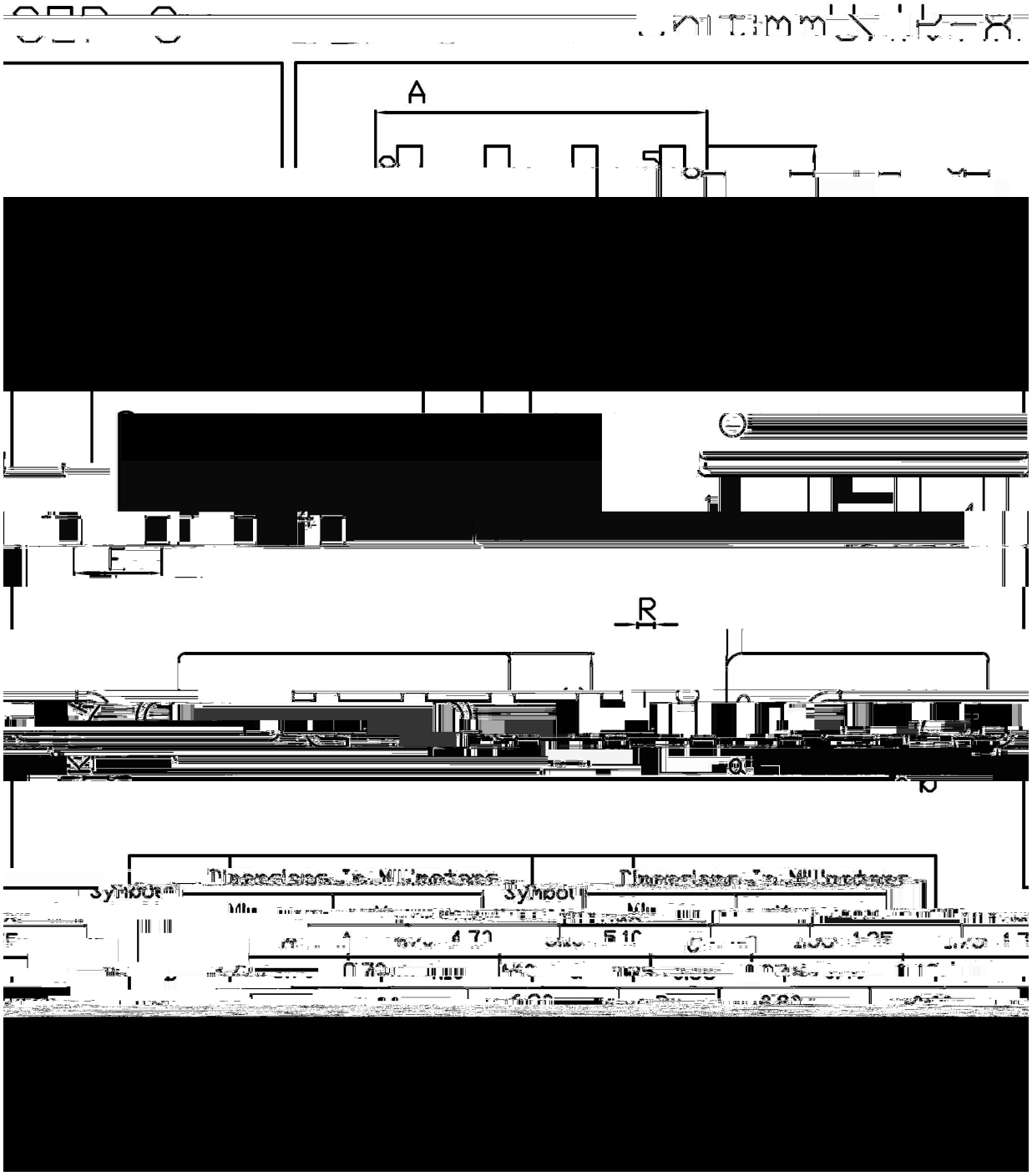


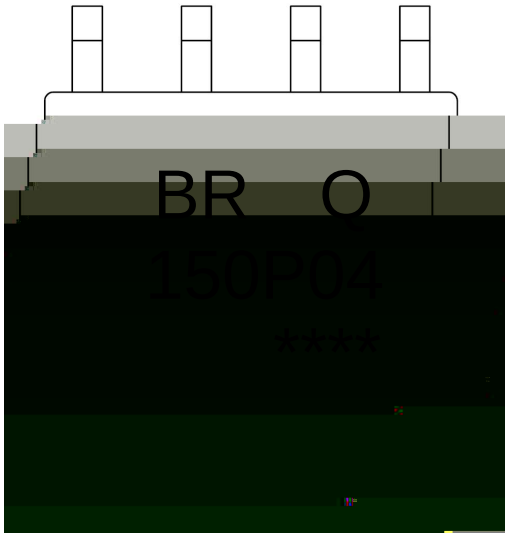
Figure 9: Maximum Fo



/ Package Dimensions



/ Marking Instructions



BR

Q

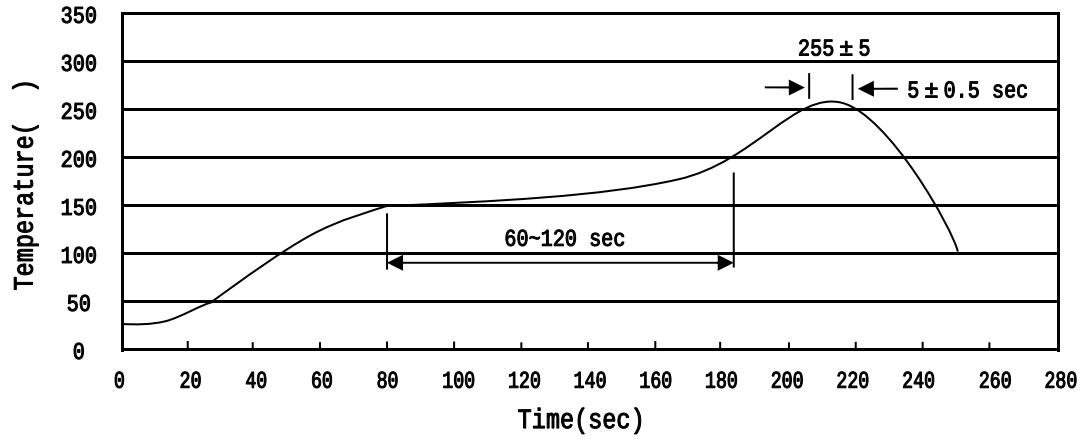
150P04

****

Note:

BR:	Company Code
Q:	Automobile halogen-free product Code
150P04:	Product Type Code
****:	Lot No. Code, code change with Lot No

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



ب Note:

1 أ	150 200 ژ 60 120sec;	1.Preheating:150~200 , Time:60~120sec.
2	255±5 ژ ٨ 5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3	٦ ھ 2 10 /sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 ژ 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

` Ł / REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366

/ Notices