

**Absolute Maximum Ratings** $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	25	A
	$I_{D@TC=75}$	19	A
	$I_{D@TC=100}$	15.8	A
Pulsed Drain Current	I_{DM}	75	A
Total Power Dissipation($TC=25$)	$P_D@TC=25$	50	W
Total Power Dissipation($TA=25$)	$P_D@TA=25$	1.25	W

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	2.3	$^{\circ}C/W$
Thermal resistance, junction - ambient	R_{thJA}	-	-	62	$^{\circ}C/W$
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	$^{\circ}C$

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0V, I_D = 250\mu A$	60			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	1.2	1.8	2.5	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS} = 60V, V_{GS} = 0V$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 12A$				
		$V_{GS} = 4.5V, I_D = 6A$				
Forward Transconductance	g_{FS}	$V_{DS} = 25V, I_D = 10A$				
Source-drain voltage	V_{SD}	$I_S = 12A$				

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input capacitance	C_{iss}	$f = 1MHz$	-	1430	-	pF
Output capacitance	C_{oss}		-	160	-	
Reverse transfer capacitance	C_{rss}		-	115	-	

Gate Charge characteristics($T_a = 25$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Total gate charge	Q_g	$V_{DD} = 25V$	-	25	-	nC
Gate - Source charge	Q_{gs}	$I_D = 5A$	-	4	-	
		$V_{GS} = 10V$				



Fig.1 Maximum Continuous Drain Current

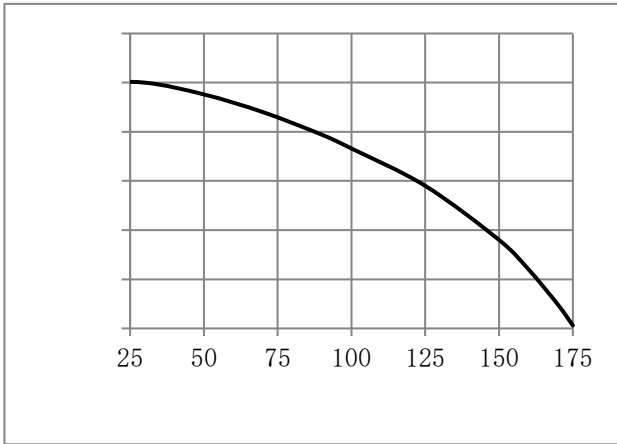


Fig.2 Typical output Characteristics

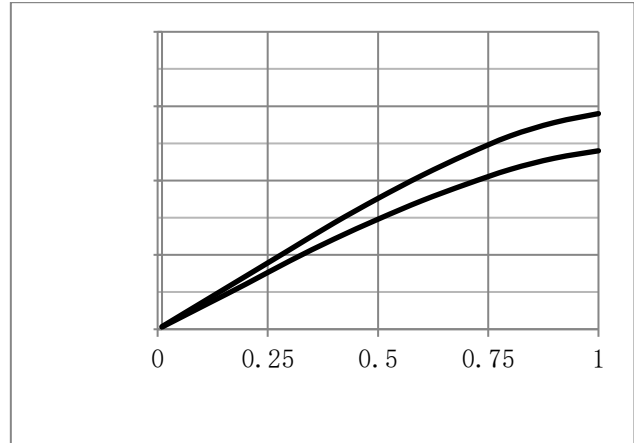


Fig.3 Threshold Voltage V.S Junction Temperature

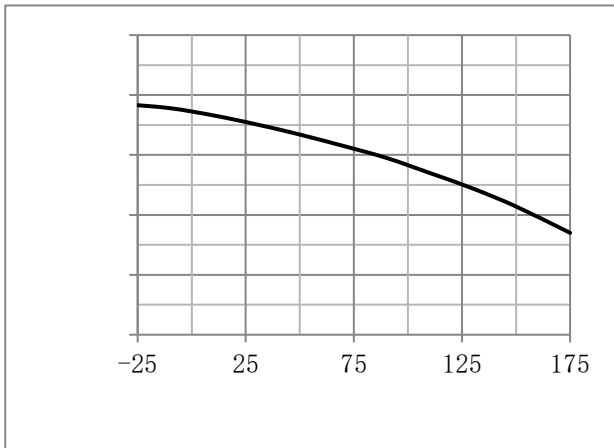


Fig.4 Resistance V.S Drain Current

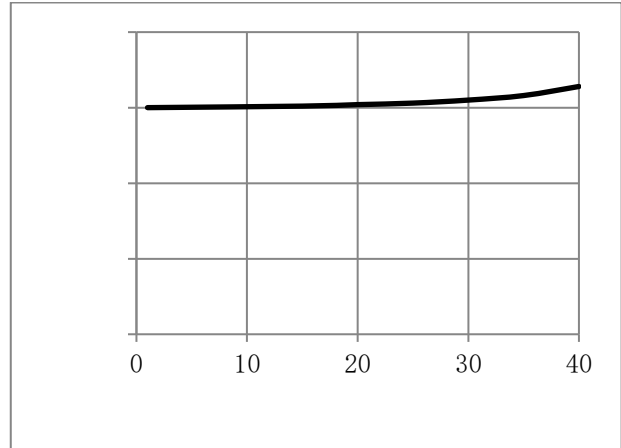


Fig.5 On-Resistance VS Gate Source Voltage

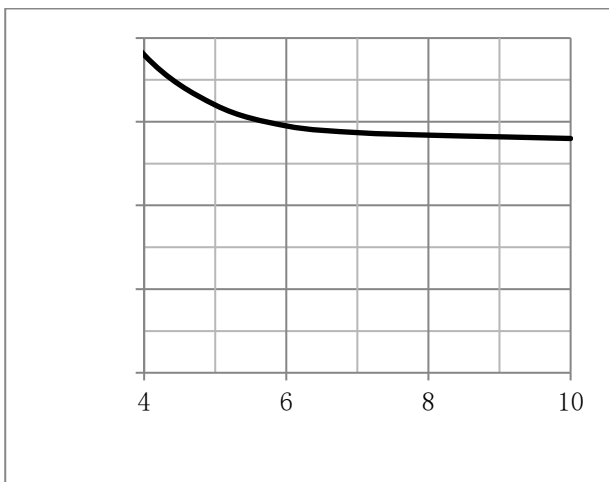
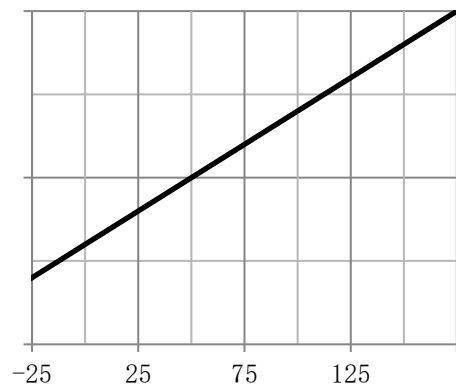


Fig.6 On-Resistance V.S Junction Temperature





(TO-252-4)

Unit: mm

