



agD

Ordering Information:**Absolute Maximum Ratings** $T_C=25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_D @TC=25$	80	A
	$I_D @TC=75$	61	A
	$I_D @TC=100$	50	A
Pulsed Drain Current	I_{DM}	240	A
Total Power Dissipation	$P_D @TC=25$	62.5	W
Total Power Dissipation	$P_D @TA=25$	2.5	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy	E_{AS}	80	mJ

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1.9	$^{\circ}C/W$
Thermal resistance, junction - ambient	R_{thJA}	-	-	50	$^{\circ}C/W$
Soldering temperature, wave soldering for 10s	T_{sold}	-	-	265	$^{\circ}C$

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0V, I_D = 250\mu A$	30			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS} = V_{DS}, I_D = 250\mu A$	1.5	1.8	2.5	V
Drain-Source Leakage Current	I_{DSS}	$V_{DS} = 30V, V_{GS} = 0V$			1.0	μA
Gate- Source Leakage Current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			100	nA
Static Drain-source On Resistance		$V_{GS} = 10V, I_D = 20A$				
		$V_{GS} = 4.5V, I_D = 10A$				
Forward Transconductance	g_{FS}	$V_{DS} = 25V, I_D = 4A$				
Source-drain voltage	V_{SD}	$I_S = 20A$				

Electronic Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input capacitance	C_{iss}	$f = 1MHz$	-	1350	-	pF
Output capacitance	C_{oss}		-	372	-	
Reverse transfer capacitance	C_{rss}		-	32	-	

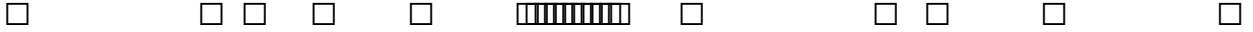
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Gate Charge characteristics ($T_a = 25^{\circ}C$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Total gate charge	$Q_g (10V)$	$V_{DD} = 15V$ $I_D = 20A$ $V_{GS} = 10V$	-	23.4	-	nC



Turn-Off Fall time	tf	$R_{G,ext}=2$		4.7		nS
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Dimension