



ST75N80C

对应国外型号
ME75N80C

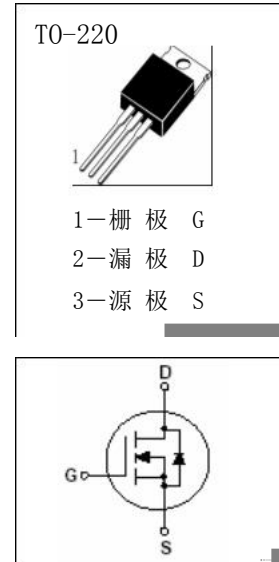
主要用途

高速开关应用。DC/DC转换器及 DC马达控制等。

极限值 (Ta=25°C)

T _{stg}	贮存温度	-55~150°C
T _j	结温	150°C
V _{DSS}	漏极—源极电压	80V
V _{GS}	栅极—源极电压	±20V
I _D	漏极电流 (T _c =25°C)	75A
I _{DM}	漏极电流 (脉冲) (注 1)	300A
P _D	耗散功率 (T _c =25°C)	75W

外形图及引脚排列



电参数 (Ta=25°C)

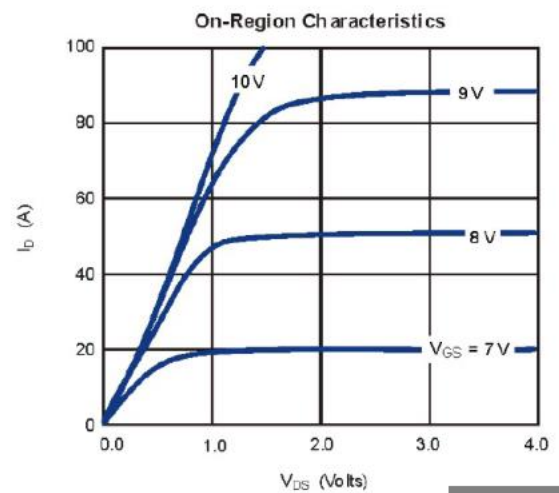
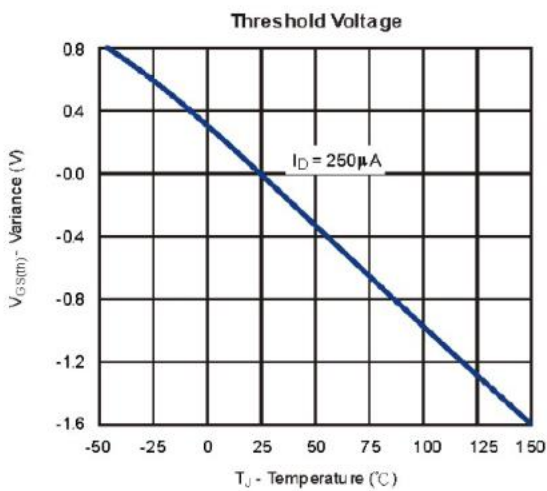
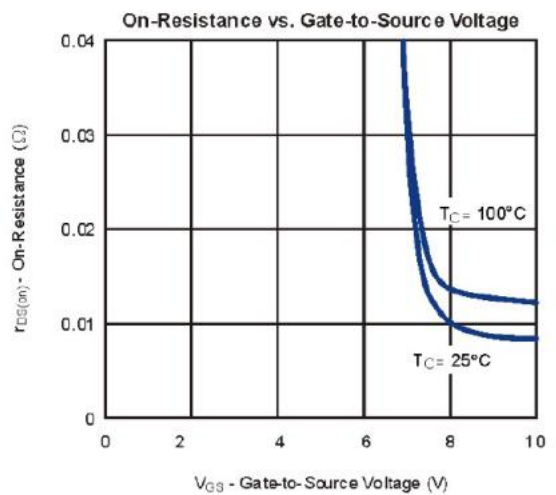
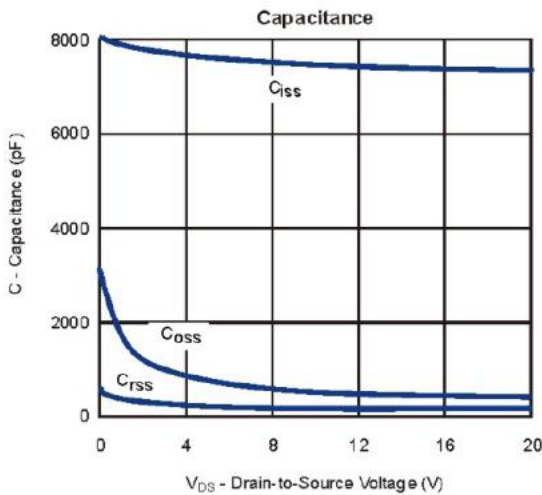
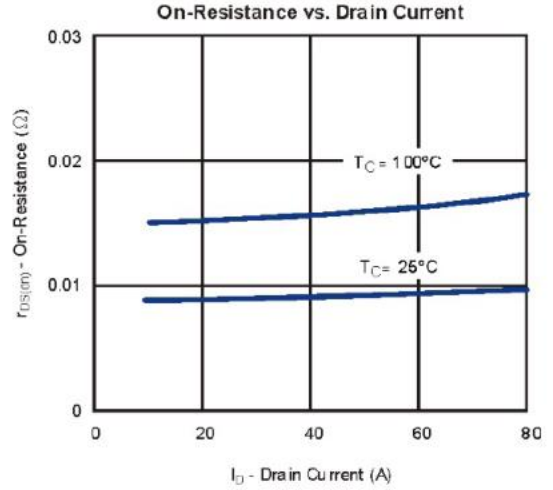
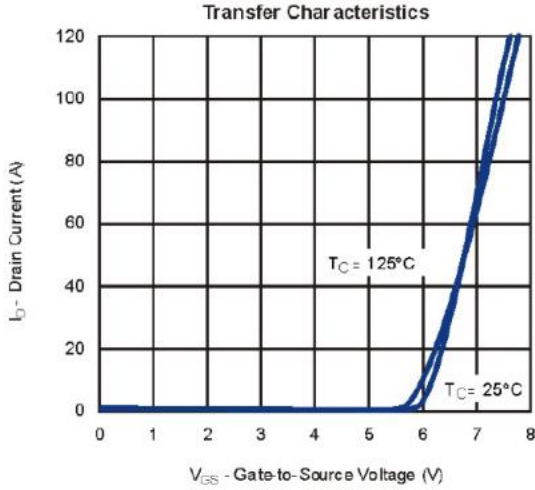
参数符号	符号说明	最小值	典型值	最大值	单位	测试条件
BV _{DSS}	漏—源极击穿电压	80			V	I _D =250 μA, V _{GS} =0V
I _{DSS}	零栅压漏极电流			1	μA	V _{DS} =80V, V _{GS} =0
I _{GSS}	栅极泄漏电流			±100	nA	V _{GS} =±20V, V _{DS} =0V
V _{GS(th)}	栅—源极开启电压	4.0		6.5	V	V _{DS} =V _{GS} , I _D =250 μA
R _{DS(on)}	漏—源极导通电阻			13	mΩ	V _{GS} =10V, I _D =40A (注 2)
C _{iss}	输入电容		7400		pF	V _{DS} =20V, V _{GS} =0, f=1MHz
C _{oss}	输出电容		450		pF	
C _{rss}	反向传输电容		140		pF	
t _{d(on)}	导通延迟时间		80		nS	V _{DS} =30V, V _{GS} =10 R _g =15 Ω R _G =10 Ω (注 2)
t _r	上升时间		37		nS	
t _{d(off)}	断开延迟时间		140		nS	
t _f	下降时间		27		nS	
Q _g	栅极总电荷		120		nC	V _{DS} =60V V _{GS} =10V I _D =75A (注 2)
Q _{gs}	栅极—源极电荷		54		nC	
Q _{gd}	栅极—漏极电荷		38		nC	
R _g	栅极阻抗		2.3		Ω	f=1MHz
V _{SD}	源极—漏极二极管导通电压			1.5	V	I _S =25A, V _{GS} =0
R _{th(j-c)}	热阻			2	°C/W	结到外壳

*注 1: 漏极电流受最大结温限制。

*注 2: 脉冲测试, 宽度≤300 μS, 占空比≤2%

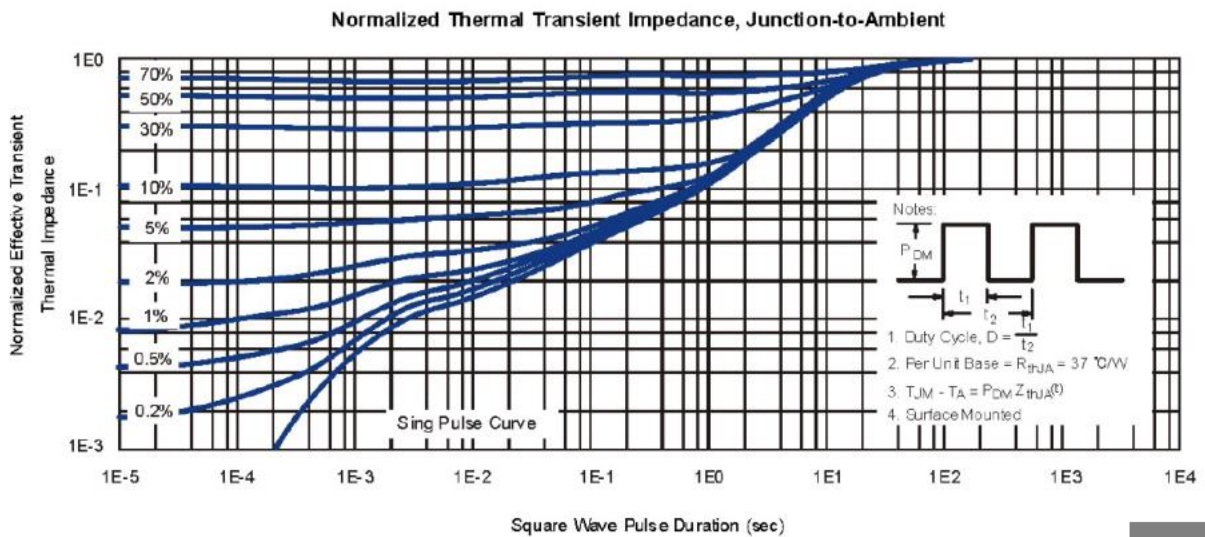
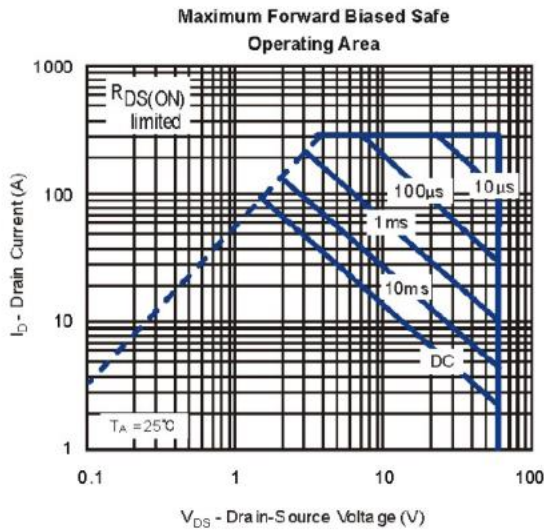
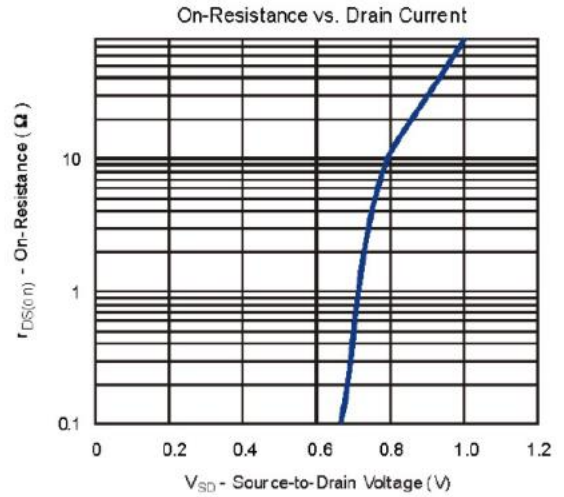
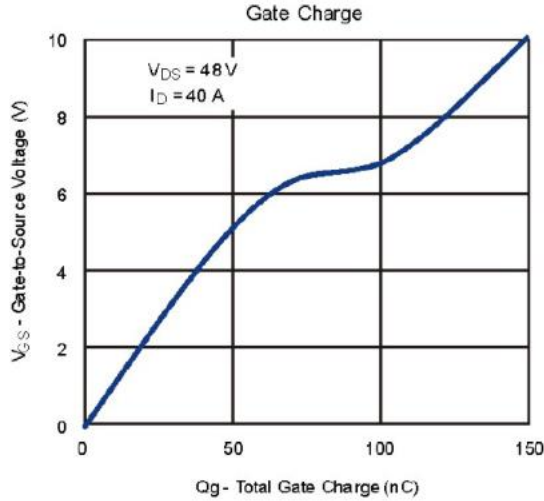


特性曲线





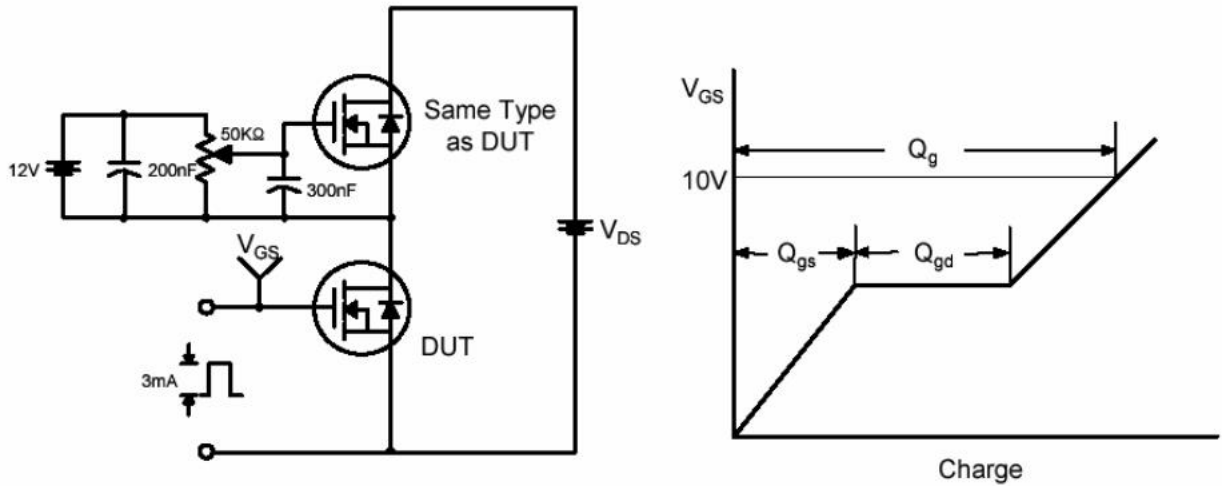
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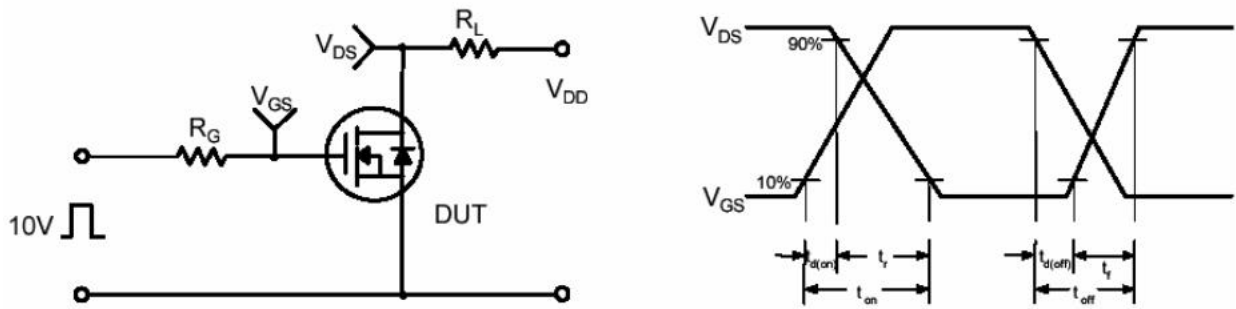


■ 特性曲线

Gate Charge Test Circuit & Waveform



Resistive Switching Test Circuit & Waveforms



Unclamped Inductive Switching Test Circuit & Waveforms

