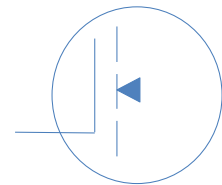


30V N-Ch Power MOSFET

V_{DS}		30	V
$R_{DS(on),typ}$	$V_{GS}=10V$	9.7	m :
$R_{DS(on),typ}$	$V_{GS}=4.5V$	14.5	m :
I_D		12	A



Part Number	Package	Marking
HTS120N03	SOIC-8	TS120N03

Absolute Maximum Ratings at T_j		X	Q	O	H	V	R	W	K	H	U	Z	L	V	H	V	S	H	F	L	I	L	H	G
Parameter	Symbol	Conditions		Value	Unit																			
Continuous Drain Current (Silicon Limited)	I_D	T_A		12	A																			
		T_A		10																				
Drain to Source Voltage	V_{DS}	-		30	V																			
Gate to Source Voltage	V_{GS}	-		± 20	V																			
Pulsed Drain Current	I_{DM}	-		48	A																			
Avalanche Energy, Single Pulse	E_{AS}	$L=0.3mH, T_C$		7.2	mJ																			
Power Dissipation	P_D	T_A		3	W																			
Operating and Storage Temperature	T_J, T_{stg}	-		-55 to 150																				

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Case	$R_{\theta JC}$	25	:
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	50	:

Electrical Characteristics at T_j

XQOHVV RWKHUZLVH VSHFLILHG

		min	typ	max
	$V_{(BR)DSS}$		-	3
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0V, V_{DS}=20V, T_j$	-	-
		$V_{GS}=\pm 20V, V_{DS}=0V$	-	-
		$V_{GS}=10V, I_D=12A$	-	9.7
		$V_{GS}=4.5V, I_D=10A$	-	14.5

nA

<p>Fig 1. Typical Output Characteristics</p>	<p>Figure 2. On-Resistance vs. Gate-Source Voltage</p>
<p>Figure 3. On-Resistance vs. Drain Current and Gate Voltage</p>	<p>Figure 4. Typical Source-Drain Diode Forward Voltage</p>
<p>Figure 5. Typical Source-Drain Diode Reverse Leakage Current</p>	<p>Figure 6. Typical Source-Drain Diode Reverse Recovery Time</p>

Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage	Figure 8. Typical Capacitance vs. Drain-to-Source Voltage

)LJXUH 0D[LPXP 6DIH 2SHUDWLQJ \$UHD	Figure 10. Single Pulse Maximum Power Dissipation

)LJXUH 1RUPDOLJHG 0D[LPXP 7UDQVLHQW 7KHUPDO ,PSHGDQFH -XQFWLR	

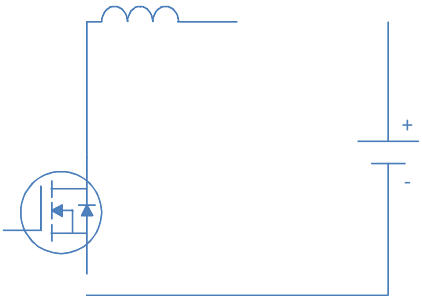
Inductive switching Test

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Gate Charge

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Uclamped Inductive Switching (UIS) Test

	
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Diode Recovery Test

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SOIC-8, 8 leads