

Features

- Fast Switching
- · Improved dv/dt Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- · Moisture Sensitivity Level 1
- · Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

• Operating Junction Temperature Range : -55°C to +150°C

• Storage Temperature Range: -55°C to +150°C

• Thermal Resistance: 60°C/W Junction to Ambient

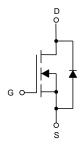
• Thermal Resistance: 2.8°C/W Junction to Case

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	400	V
Gate-Source Volltage	V _{GS}	±30	V
Continuous Drain Current	I _D	6	Α
Pulsed Drain Current ^(Note 1)	I _{DM}	24	Α
Total Power Dissipation (T _C =25°C)	P _D	45	W
Single Pulsed Avalanche Energy ^(Note2)	E _{AS}	115	mJ
Repetitive Avalanche Energy ^(Note1)	E _{AR}	14	mJ

Note 1.Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature.

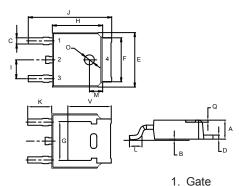
2.L=10.0mH, V_{DD} =50V, R_G =25 Ω , Starting T_J =25 °C.

Internal Structure



N-CHANNEL MOSFET





2,4. Drain

3. Source

DIMENSIONS						
DIM	INCHES		MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOTE	
Α	0.087	0.094	2.20	2.40		
В	0.000	0.005	0.00	0.13		
С	0.026	0.034	0.66	0.86		
D	0.018	0.023	0.46	0.58		
E	0.256	0.264	6.50	6.70		
F	0.201	0.215	5.10	5.46		
G	0.190		4.83		TYP.	
Н	0.236	0.244	6.00	6.20		
I	0.086	0.094	2.18	2.39		
J	0.386	0.409	9.80	10.40		
K	0.114		2.9	90	TYP.	
L	0.055	0.067	1.40	1.70		
M	0.063		1.60		TYP.	
0	0.043	0.051	1.10	1.30		
Q	0.000	0.012	0.00	0.30		
V	0.211		5.3	35	TYP.	



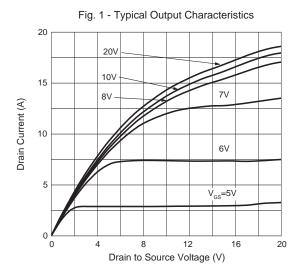
Electrical Characteristics @ 25°C (Unless Otherwise Specified)

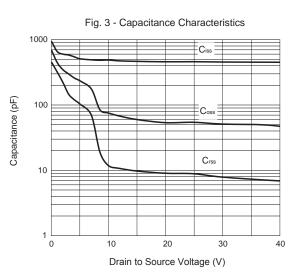
Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =250μA	400			V
Gate-Source Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±30V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =400V, V _{GS} =0V			1	μΑ
Gate-Threshold Voltage	V _{GS(th)}	$V_{DS}=V_{GS}$, $I_{D}=250\mu A$	3		4	V
Drain-Source On-Resistance ^(Note 3)	R _{DS(on)}	V _{GS} =10V, I _D =3A		0.86	1	Ω
Dynamic Characteristics	Dynamic Characteristics					
Input Capacitance	C _{iss}			462		
Output Capacitance	C _{oss}	V _{DS} =25V,V _{GS} =0V,f=1MHz		54.2		pF
Reverse Transfer Capacitance	C _{rss}			8.8		
Turn-On Delay Time	t _{d(on)}			10		- ns
Turn-On Rise Time	t _r	V -200VI -2A D -250		25		
Turn-Off Delay Time	t _{d(off)}	V_{DS} =200V, I_{D} =3A, R_{GEN} =25 Ω		40		
Turn-Off Fall Time	t _f			52		
Total Gate Charge	Qg			13.5	17.5	
Gate-Source Charge	Q_{gs}	V_{DS} =320V, V_{GS} =10V, I_{D} =3A		2		nC
Gate-Drain Charge	Q_{gd}			6		
Body Diode Characteristics						
Diode Forward Current	Is	T -25°C			6	Α
Pulsed Source Current	I _{SP}	T _C =25°C			24	А
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =3A			1.4	V
Reverse Recovery Time	t _{rr}	I _s =3A, di/dt=100A/μs		220		ns
Reverse Recovery Charge	Q _{rr}	is-on, allat-100mps		3		μC

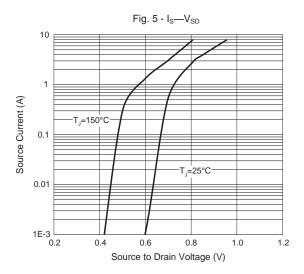
Note 3. Pulse Test: Pulse Width ≤ 300µs, Duty Cycle ≤ 1%.

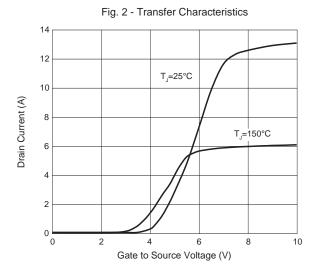


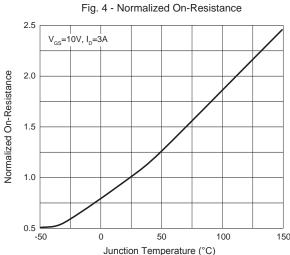
Curve Characteristics

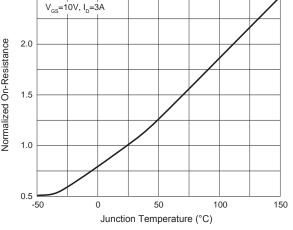


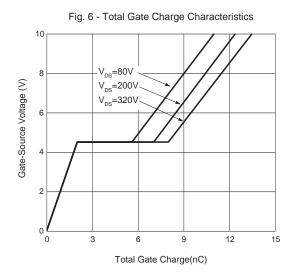














Ordering Information

Device	Packing	
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel	

Note: Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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