

isc N-Channel MOSFET Transistor

IXTA270N04T4

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 2.4m\Omega @ V_{GS}=10V$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

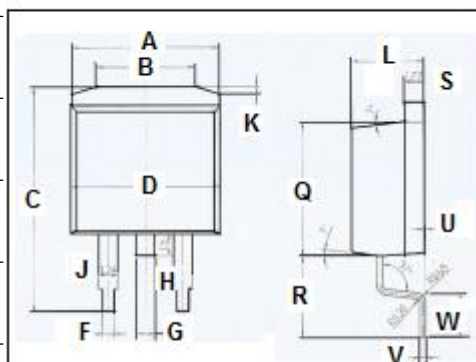
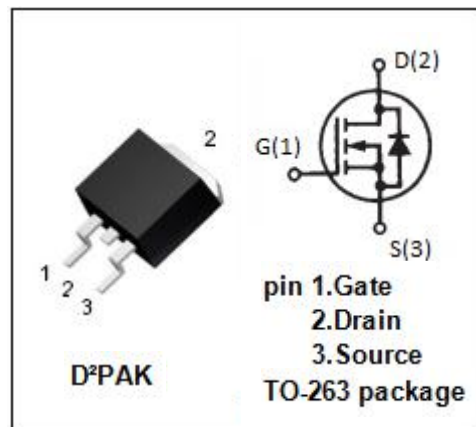
- DC/DC Converters
- High Current Switching Applications

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	40	V
V_{GS}	Gate-Source Voltage	± 15	V
I_D	Drain Current-Continuous	270	A
I_{DM}	Drain Current-Single Pulsed	800	A
P_D	Total Dissipation @ $T_c=25^\circ C$	375	W
T_j	Operating Junction Temperature	-55~175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.4	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

isc N-Channel MOSFET Transistor**IXTA270N04T4****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 250 μ A	40		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D = 250 μ A	2.0	4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D = 50A		2.4	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±15V; V _{DS} =0V		±200	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = V _{DSS} ; V _{GS} = 0V		5	μ A
		V _{DS} = V _{DSS} ; V _{GS} = 0V; T _J = 150°C		750	
V _{SD}	Diode forward voltage	I _F = 100A; V _{GS} = 0V		1.4	V

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