



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	40V
$I_D$	225A
$R_{DS(ON)}$ (at $V_{GS}=10V$ )	1.2m
100% EAS Tested	
100% $V_{DS}$ Tested	

### General Description

Excellent package for heat dissipation  
High density cell design for low  $R_{DS(ON)}$   
Epoxy Meets UL 94 V-0 Flammability Rating  
Halogen Free

-Q101 qualified

### Applications

High power inverter system  
Uninterruptible power supply  
LCDM appliances

### Absolute Maximum Ratings ( $T_A=25$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		$V_{DS}$	40	V
Gate-source Voltage		$V_{GS}$	$\pm 20$	V
Drain Current	$T_A=25$	$I_D$	25	A
	$T_A=100$		17.8	
	$T_C=25$		225	
	$T_C=100$		159	
Pulsed Drain Current <sup>A</sup>		$I_{DM}$	400	A
Avalanche energy <sup>B</sup>		EAS	1441	mJ
Total Power Dissipation <sup>C</sup>	$T_A=25$	$P_D$	2	W
	$T_A=100$		1	
	$T_C=25$		166	
	$T_C=100$		8	



# YJT225G04HJQ

RECOMMEND  
[YJT1D3G04HQ](#)  
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## Electrical Characteristics ( $T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D$	40	-		



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Typical Electrical and Thermal Characteristics Diagrams

Figure



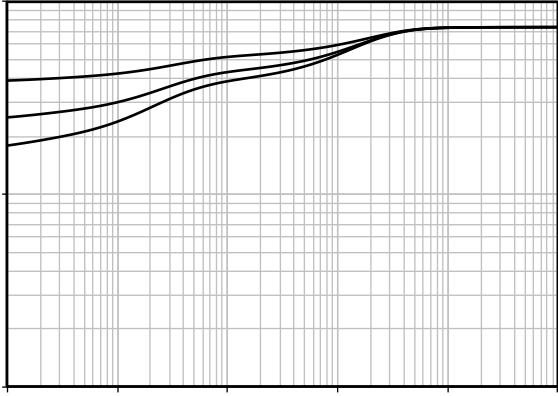


Figure 13. Maximum Transient Thermal Impedance



Figure 14. Safe Operation Area

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**TOLL Package information**

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	2.2	2.3	2.4
A1	1.7	1.8	1.9
b	0.7	0.8	0.9
b1	9.7	9.8	9.9
b2	1.1	1.2	1.3
c	0.4	0.5	0.6
D	10.28	10.38	10.48
D1	10.98	11.08	11.18
D2	3.2	3.3	3.4
D3	4.45	4.55	4.65
E	9.8	9.9	10
E1	8	8.1	8.2
e	1.2 BSC		
H	11.58	11.68	11.78
H1	6.95 BSC		
i	0.1 REF		
j	0.46 REF		
L	1.5	1.6	1.7
L1	0.6	0.7	0.8
L2	0.5	0.6	0.7
L3	0.3	0.4	0.5
Q	8 REF		
R	3.0	3.1	3.2

## Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.03\text{mm}$ .
3. The pad layout is for reference purposes only.

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