

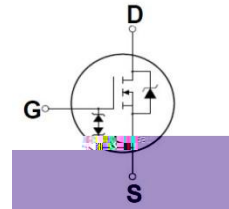
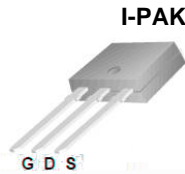
# TMD16N25Z(G)/TMU16N25Z(G)

N-channel MOSFET

## Features

- Low gate charge
- 100% avalanche tested
- Improved dv/dt capability
- RoHS compliant
- Halogen free package
- JEDEC Qualification

$BV_{DSS}$	$I_D$	$R_{DS(on)}$
250V	16A	<0.24 $\Omega$



Device	Package	Marking	Remark
TMD16N25Z / TMU16N25Z	D-PAK/I-PAK	TMD16N25Z / TMU16N25Z	RoHS
TMD16N25ZG / TMU16N25ZG	D-PAK/I-PAK	TMD16N25ZG / TMU16N25ZG	Halogen Free

## Absolute Maximum Ratings

Parameter	Symbol	TMD16N25Z(G)/TMU16N25Z(G)	Unit
Drain-Source Voltage	$V_{DSS}$	250	V
Gate-Source Voltage	$V_{GS}$	30	V
Continuous Drain Current	$I_D$	$T_C = 25$	16
		$T_C = 100$	8.3
Pulsed Drain Current (Note 1)	$I_{DM}$	64	A
Single Pulse Avalanche Energy (Note 2)	$E_{AS}$	368	mJ
Repetitive Avalanche Current (Note 1)	$I_{AR}$	16	A
Repetitive Avalanche Energy (Note 1)	$E_{AR}$	9.39	mJ
Power Dissipation	$P_D$	$T_C = 25$	93.9
		Derate above 25	0.75
Peak Diode Recovery dv/dt (Note 3)	dv/dt	4.5	V/ns
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~150	
Maximum lead temperature for soldering purposes,	$T_L$	300	

\* Limited only by maximum junction temperature

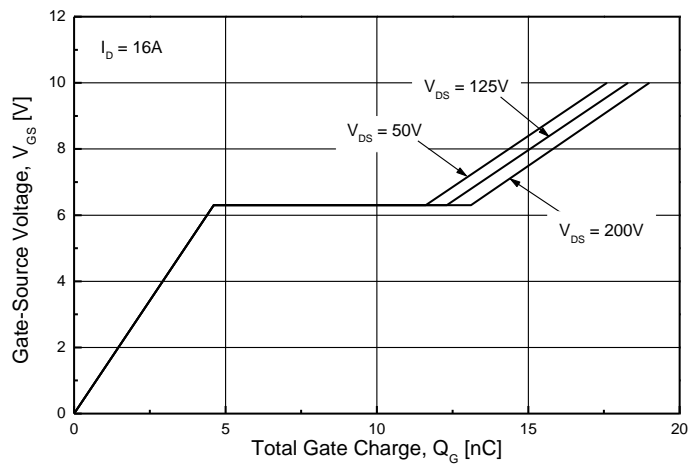
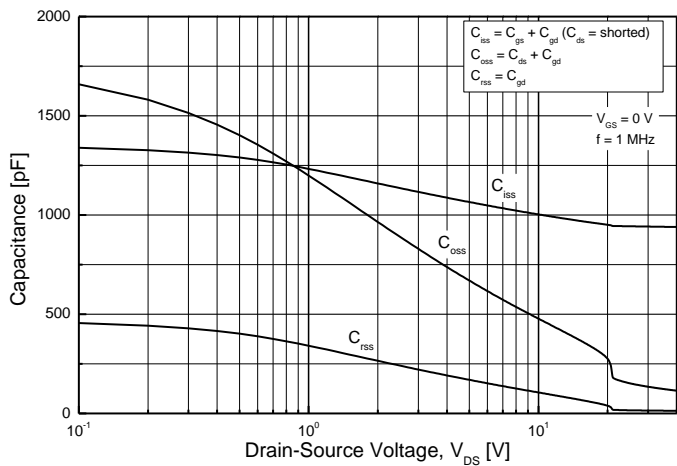
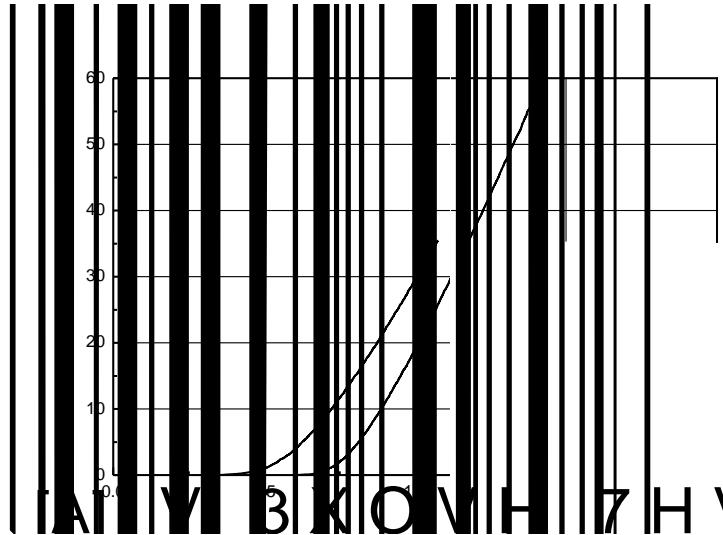
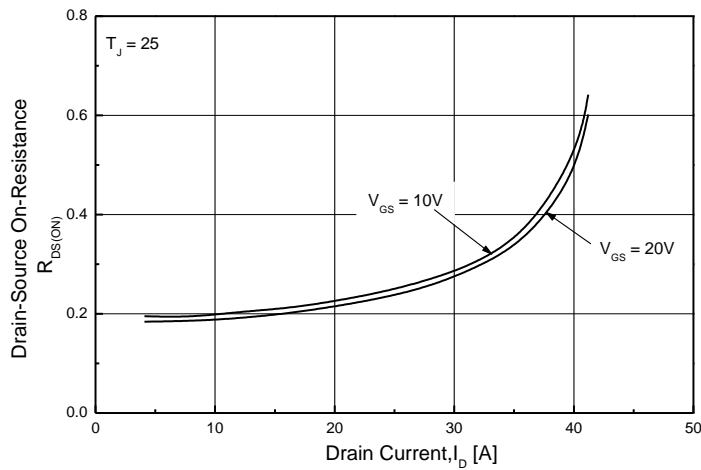
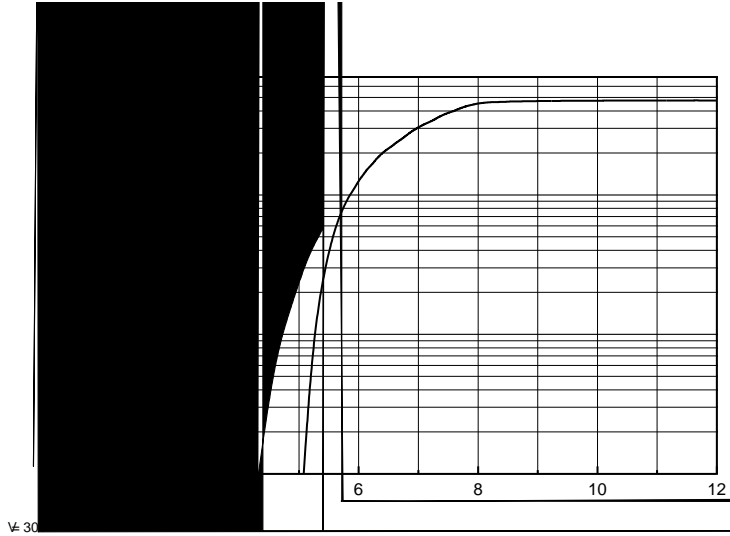
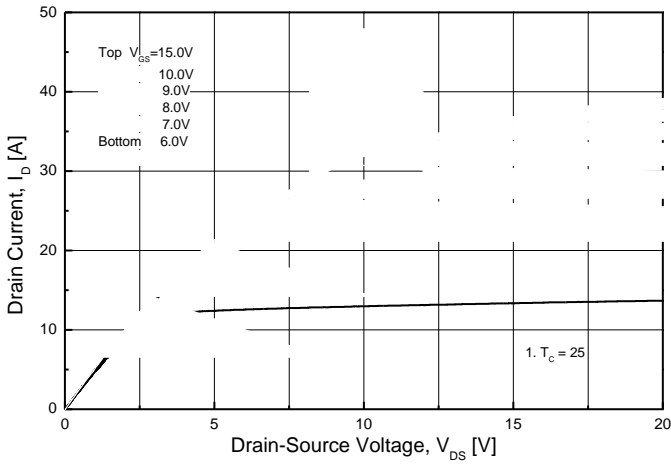
## Thermal Characteristics

Parameter	Symbol	TMD16N25Z(G)/TMU16N25Z(G)	Unit
Maximum Thermal resistance, Junction-to-Case	$R_{\theta JC}$	1.33	/W
Maximum Thermal resistance, Junction-to-Ambient	$R_{\theta JA}$	110	/W

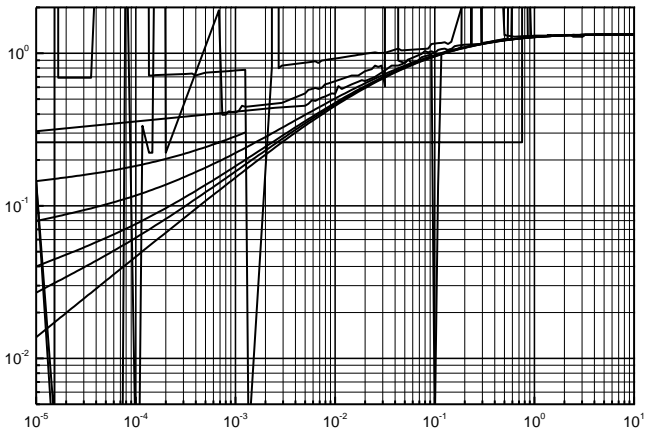
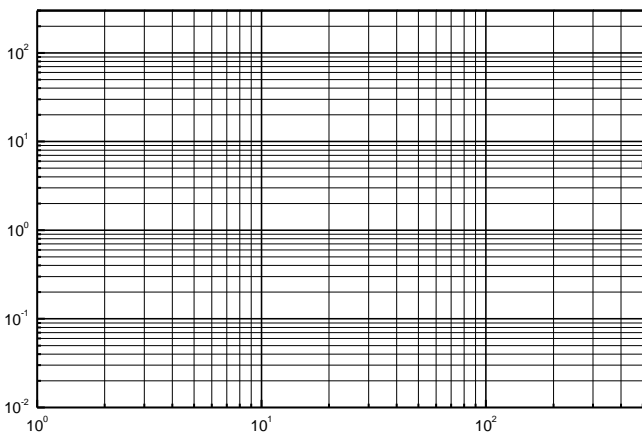
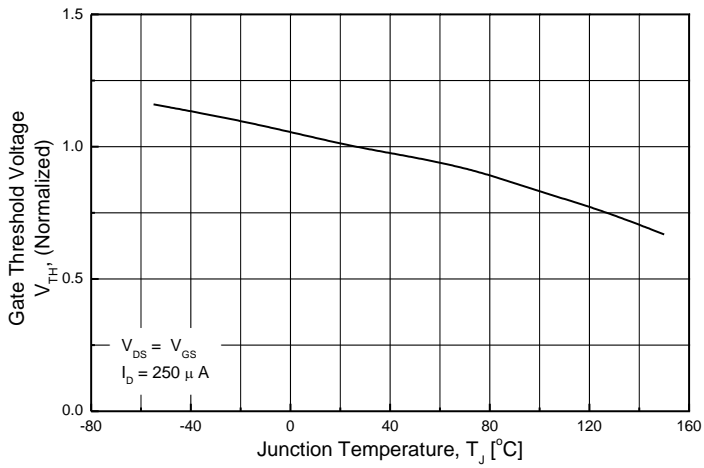
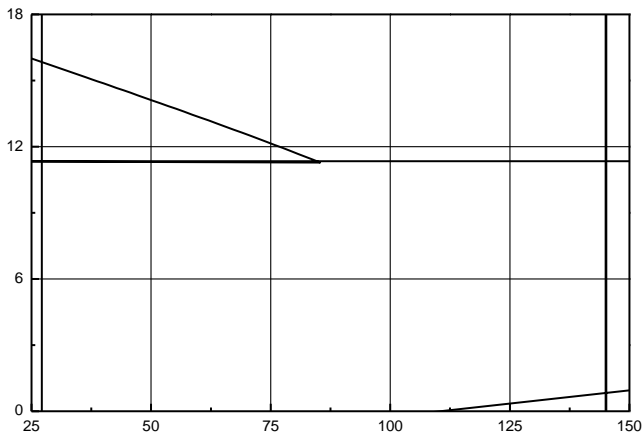
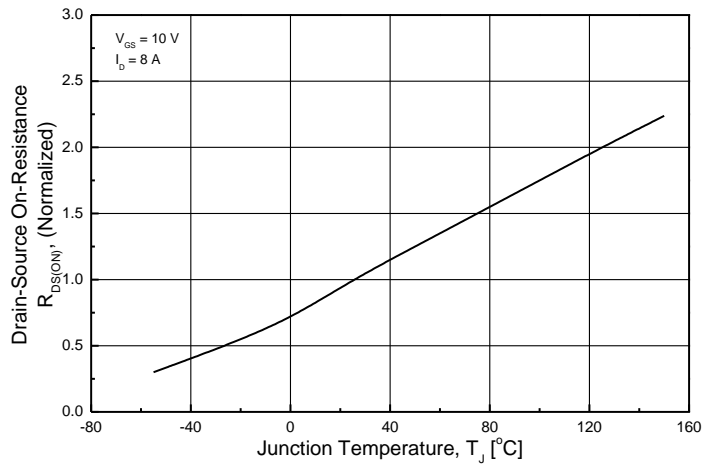
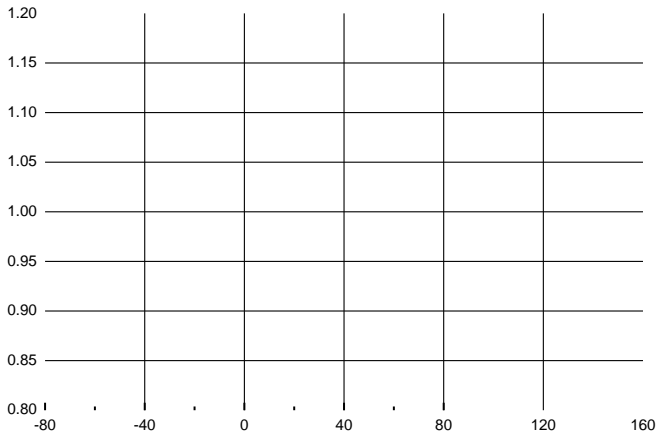
## Electrical Characteristics : $T_c=25$ , unless otherwise noted

Parameter						

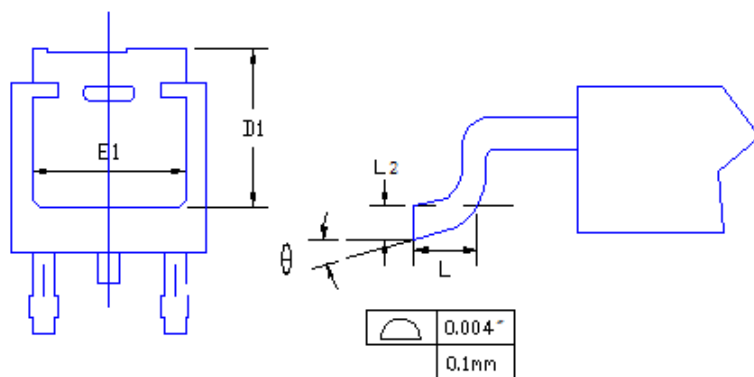
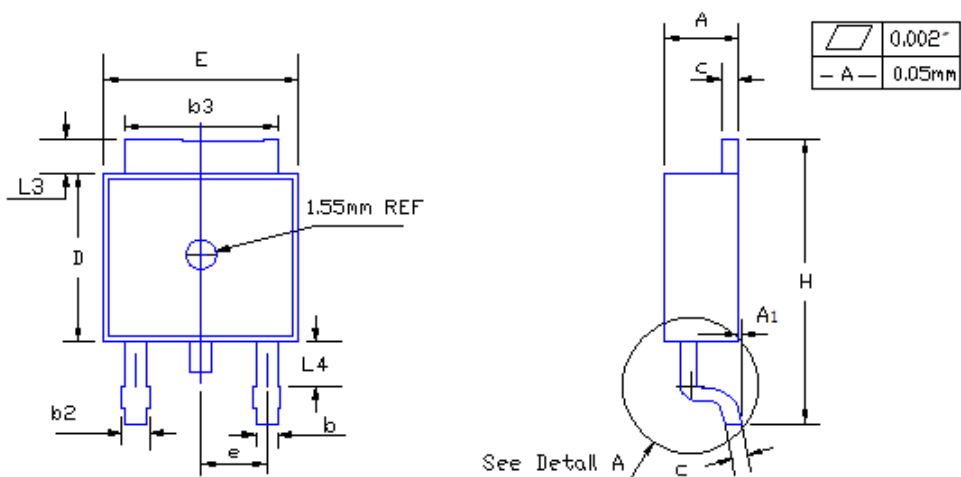
- Note :
- 1. Repeated rating : Pulse width limited by safe operating area
  - 2.  $L=2.3mH$ ,  $I_{AS} = 16A$ ,  $V_{DD} = 50V$ ,  $R_G = 25 \mu s$  , Starting  $T_J= 25$
  - 3.  $I_{SD} \leq 16A$ ,  $di/dt \leq \mu s$ ,  $V_{DD} \leq V_{DS}$ , Starting  $T_J= 25$
  - 5. Essentially Independent of Operating Temperature Typical Characteristics



# TMD16N25Z(G)/TMU16N25Z(G)



TO-252 (D-PAK) MECHANICAL DATA



SYMBOL	MILLIMETERS	
	MIN	MAX
A	2.19	2.38
A1	—	0.13
b	0.64	0.89
b2	0.84	1.14
b3	5.21	5.46
c	0.46	0.61
D	5.97	6.22
D1	5.21	—
E	6.35	6.73
E1	4.83	—
e	2.29BSC	
H	9.65	10.41
L	1.40	1.78
L2	0.51BSC	
L3	0.89	1.27
L4	0.64	1.01
$\phi$	0	8

**TO-251 (I-PAK) MECHANICAL DATA**