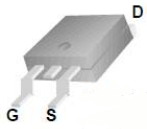
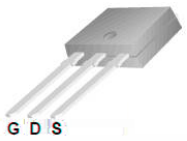
Features

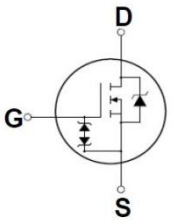
- Low gate charge
- 100% avalanche tested
- Improved dv/dt capability
- RoHS compliant
- Halogen free package
- JEDEC Qualification
- Improved ESD performance

D-PAK



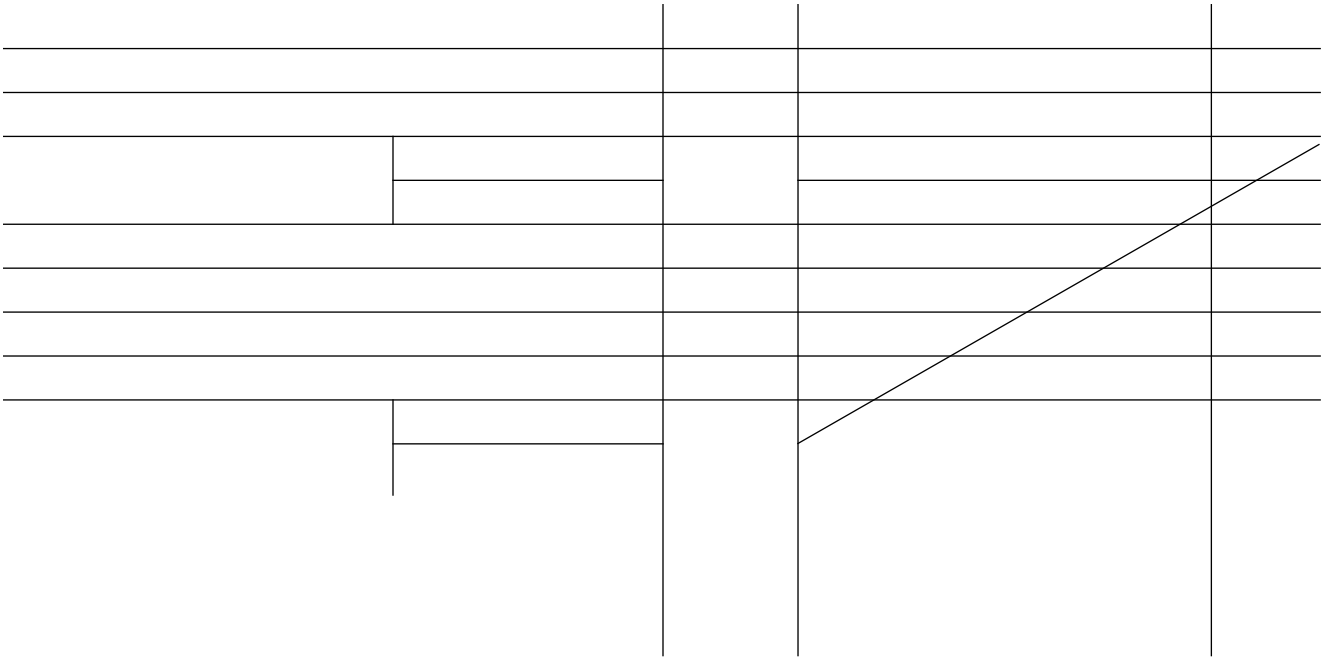
I-PAK





Device	Package	Marking	Remark
TMD2N60AZ / TMU2N60AZ	D-PAK/I-PAK	TMD2N60AZ / TMU2N60AZ	RoHS
TMD2N60AZG / TMU2N60AZG	D-PAK/I-PAK	TMD2N60AZG / TMU2N60AZG	Halogen Free

Absolute Maximum Ratings

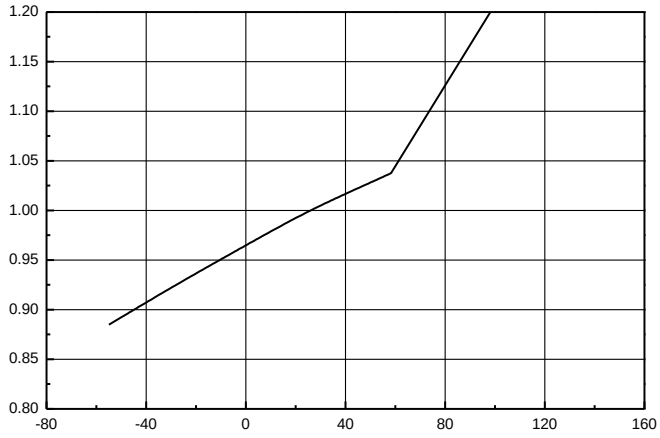


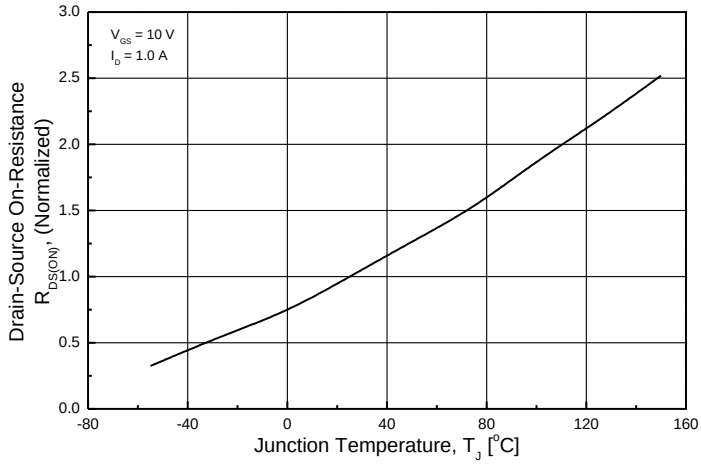
* Limited only by maximum junction temperature

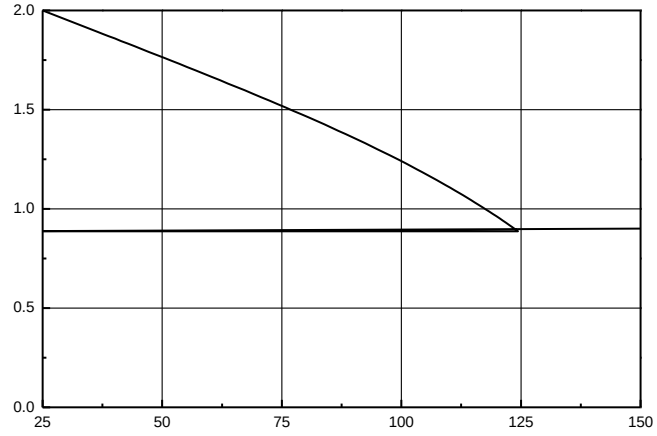
Thermal Characteristics

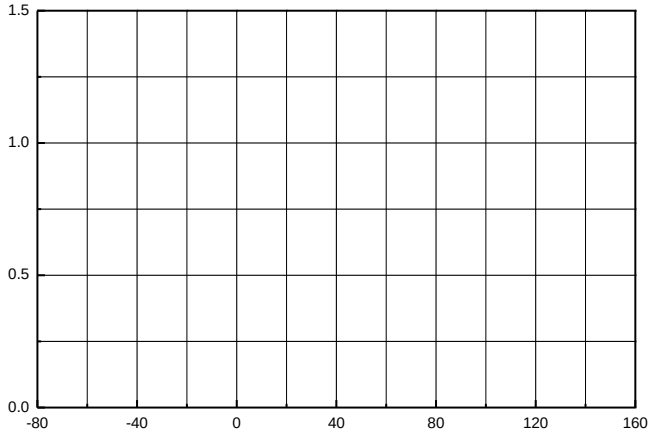
Electrical Characteristics : T_C=25 , unless otherwise noted

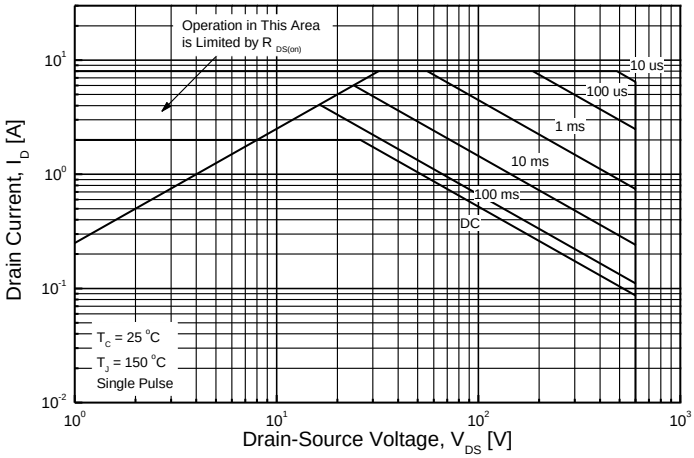
Note :
1. Repeated rating : Pulse width limited by safe operating area
2. L=30.5mH, I_{AS} = 2.0A, V_{DD} = 50V, R_G = 25 , Starting T_J= 25
3 I_{SD} 2.0A, di/dt µs , V_{DD} $_{DS}$, Starting T_J

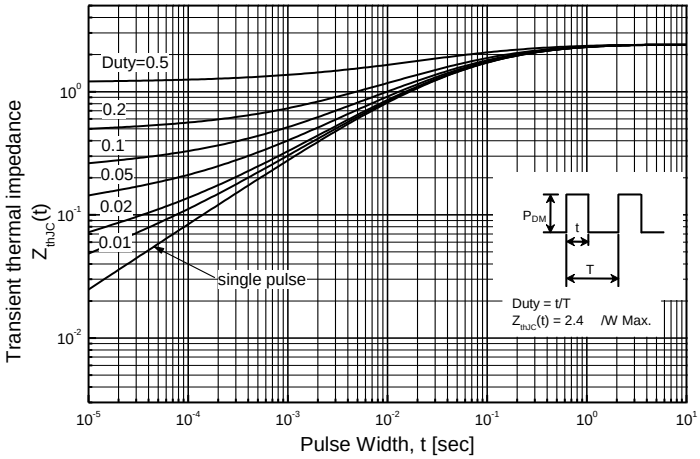

1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
0.80
-80
-40
0
40
80
120
160


V_{GS} = 10 V
I_D = 1.0 A
Drain-Source On-Resistance
$R_{DS(ON)}$, (Normalized)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-80
-40
0
40
80
120
160
Junction Temperature, T_J [^{0}C]

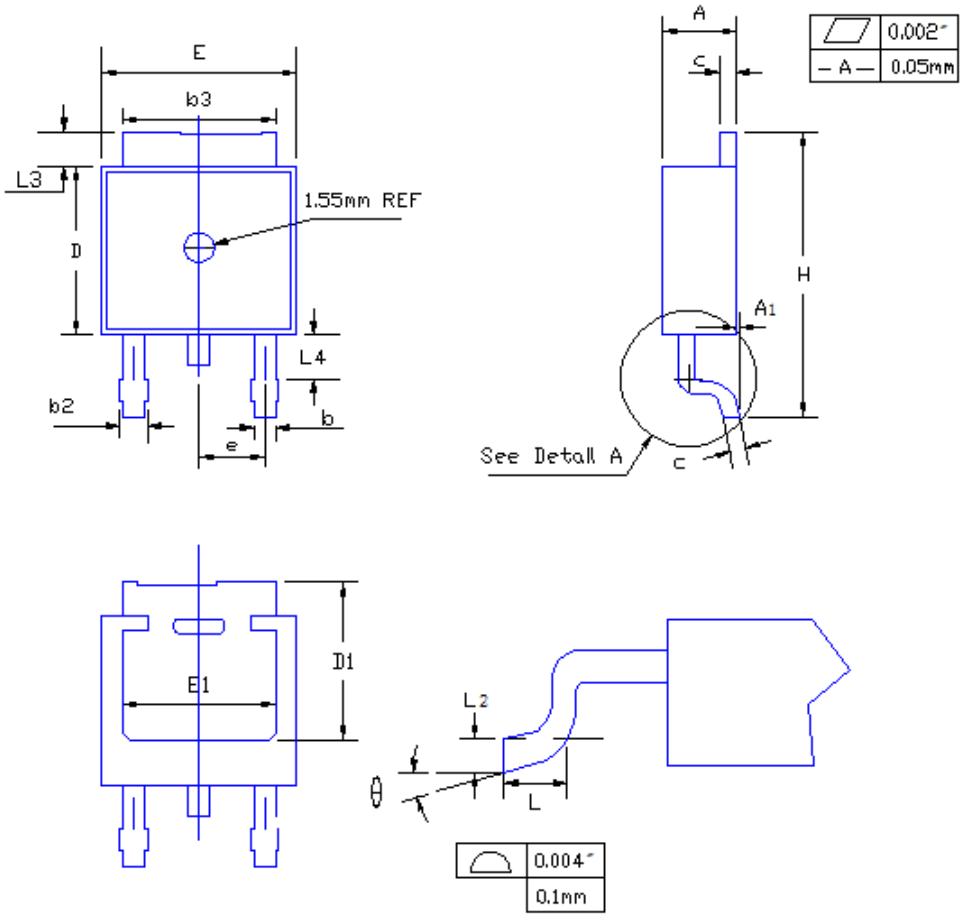

2.0
1.5
1.0
0.5
0.0
25
50
75
100
125
150


1.5
1.0
0.5
0.0
-80
-40
0
40
80
120
160


Operation in This Area
is Limited by $R_{DS(on)}$
10 us
100 us
1 ms
10 ms
100 ms
DC
T_C = 25 °C
T_J = 150 °C
Single Pulse
Drain Current, I_D [A]
10^1
10^0
10^{-1}
10^{-2}
10^0
10^1
10^2
10^3
Drain-Source Voltage, V_{DS} [V]

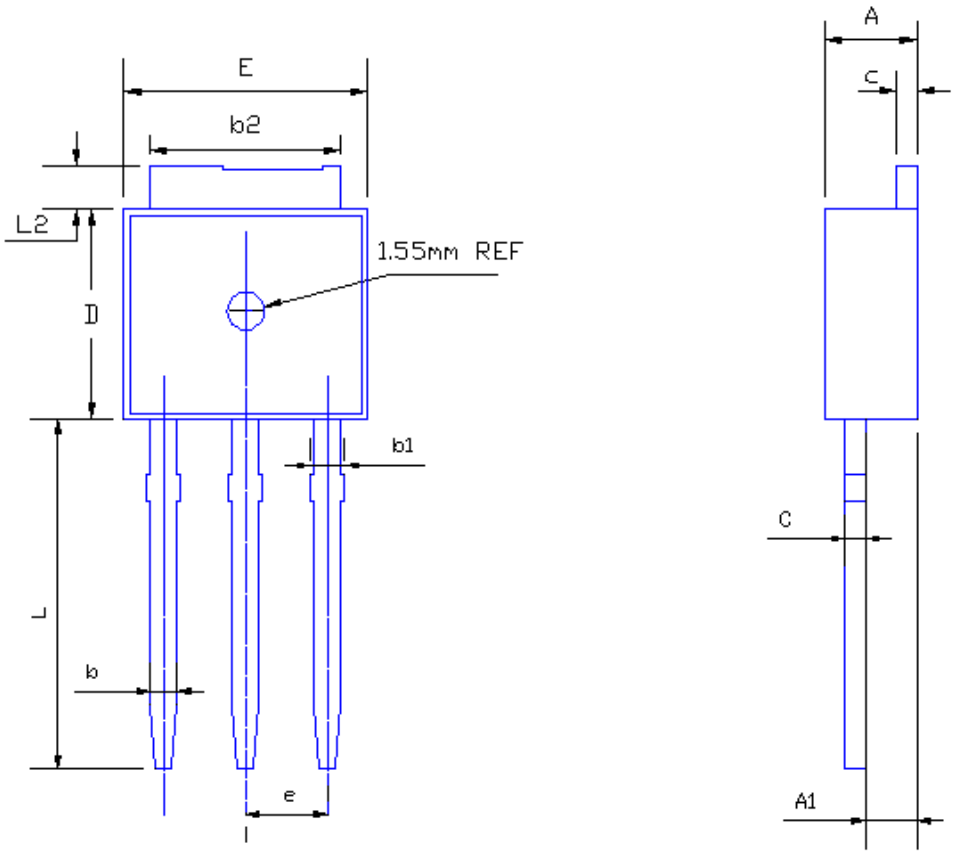

Duty=0.5
0.2
0.1
0.05
0.02
0.01
single pulse
P_{DM}
t
T
Duty = t/T
Z_{thJC}(t) = 2.4 /W Max.
Transient thermal impedance
Z_{thJC}(t)
10^0
10^{-1}
10^{-2}
10^{-5}
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^0
10^1
Pulse Width, t [sec]

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
θ	0	8

TO-251 (I-PAK) MECHANICAL DATA



SYMBOL	MILLIMETERS	
	MIN	MAX
A	2.19	2.38
A1	1.04	1.23
b	0.64	0.89
b1	0.84	1.14
b2	5.23	5.48
c	0.46	0.61
D	5.91	6.28
E	6.21	6.59
e	2.28 TYP	
L	8.89	9.65
L2	0.89	1.27