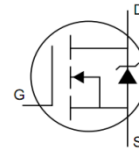




Product Summary

The ZM085N02U combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$.

$V_{DS} = 20V$



$R_{DS(ON)} = 8.5m\Omega$

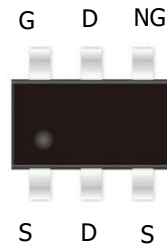
$I_D = 10A$

Trench technology

$R_{DS(ON)}$ to minimize conductive loss

fast switching

nd Synchronous Rectifier



SOT23-6

Part NO.	ZM085N02U
Marking	085N02
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	$I_{D@TC=25}$	10	A
	$I_{D@TC=75}$	7.6	A
	$I_{D@TC=100}$	6.3	A
Pulsed Drain Current	I_{DM}	46	A
Total Power Dissipation	P_D	15	W
Total Power Dissipation($T_A=25$)	$P_D@T_A=25$	1.3	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	



Thermal resistance

Parameter	Symbol	Min.		Max.	Unit
Thermal resistance, junction - case	R _{thJC}	-	-	8	C/W
Thermal resistance, junction - ambient	R _{thJA}	-	-	95	C/W

Soldering temperature, wavesol4.84 651.58 248.5



Fig.1 Gate-Charge Characteristics

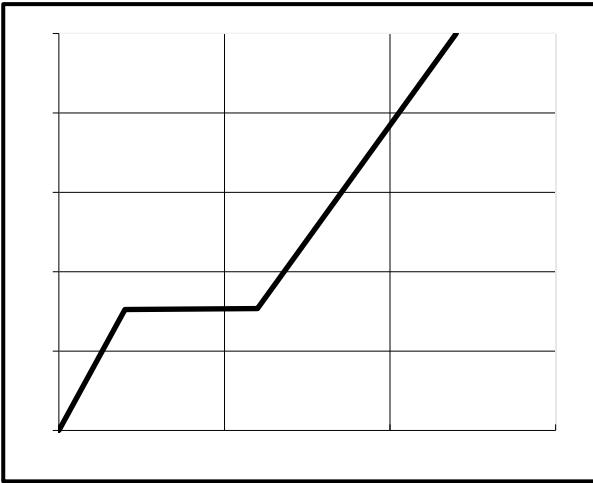


Fig.2 Capacitance Characteristics

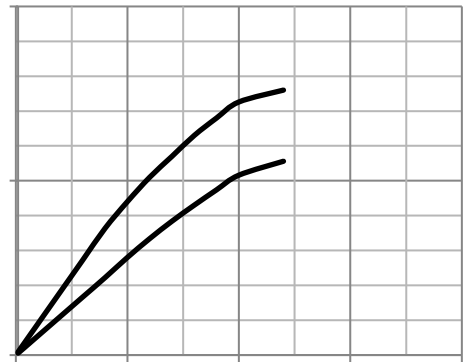


Fig.3 Power Dissipation Derating Curve

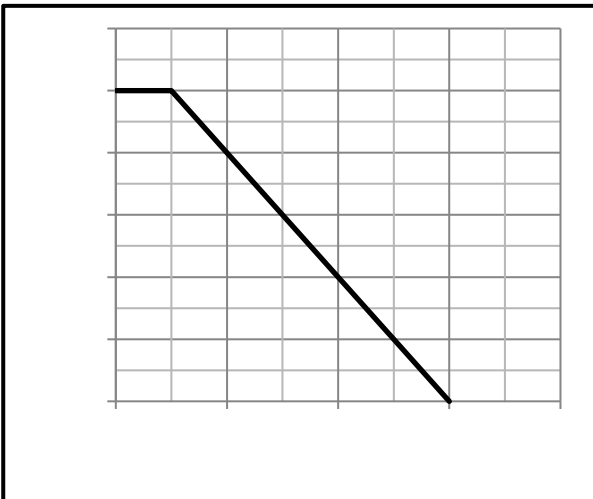


Fig.4 Typical output Characteristics

Fig.5 Threshold Voltage V.S Junction Temperature Fig.6 Resistance V.S Drain Current

Fig.7 On-Resistance VS Gate Source Voltage



Fig.8 On-Resistance V.S Junction Temperature

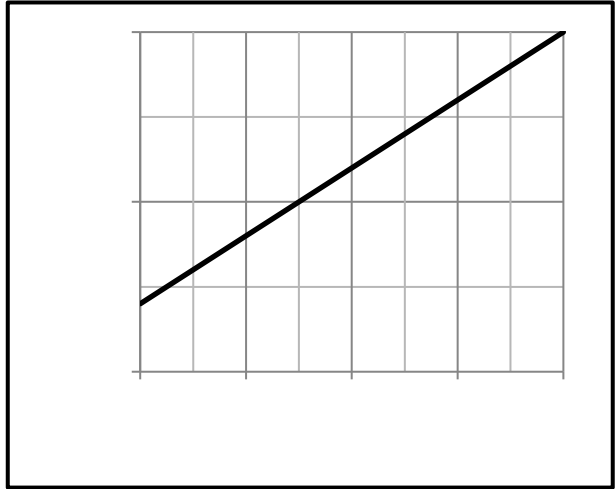


Fig.9 Switching Time Measurement Circuit

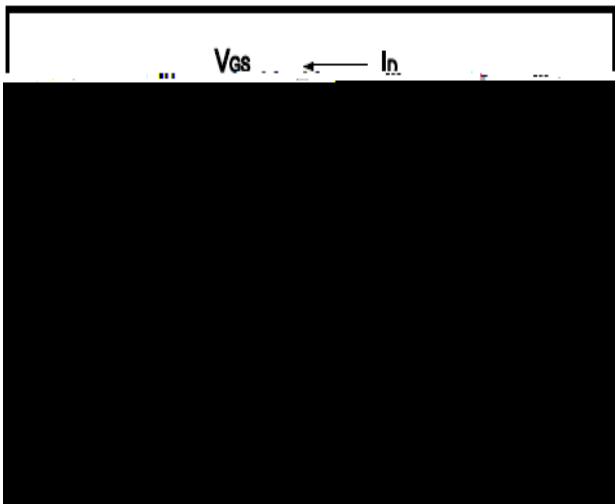


Fig.10 Gate Charge Waveform

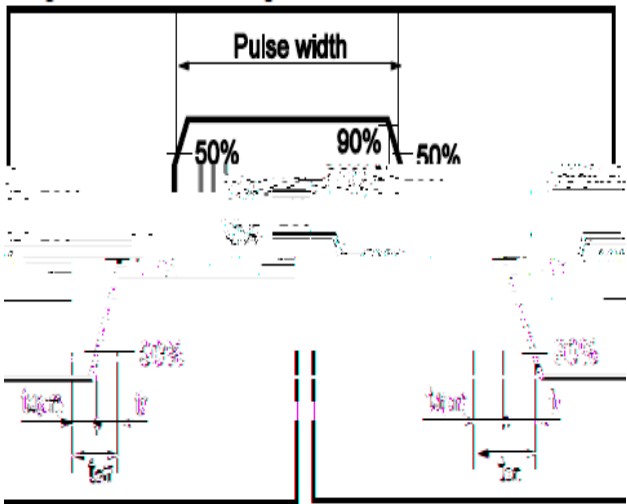


Fig.11 Avalanche Measurement Circuit

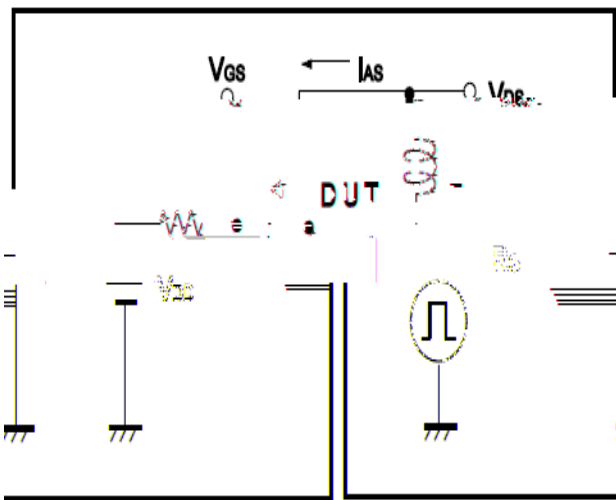
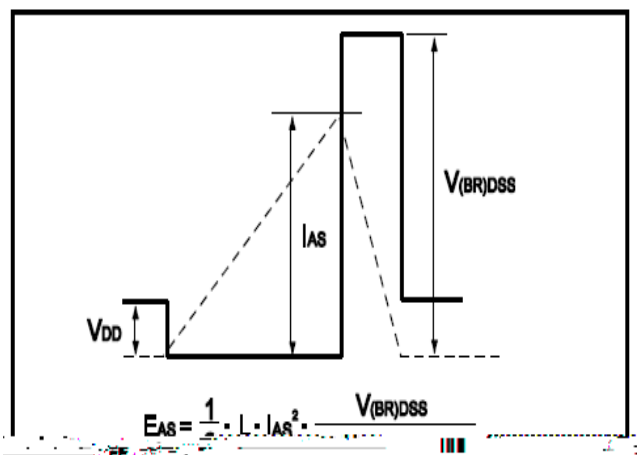


Fig.12 Avalanche Waveform





(SOT23-6)

Unit: mm

