

Features

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

Advantages

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

Applications

Synchronous Rectification for AC-DC/DC-DC converter
Oring switches
Power Tools

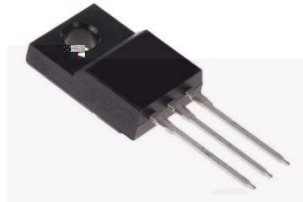
Package Information

Package	
Lead Form	
Lead Spacing	REEL TAPE
Lead Length	800

Electrical Characteristics $T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	90	A
	$I_{D@TC=75}$	68	A
	$I_{D@TC=100}$	57	A
Pulsed Drain Current	I_{DM}	270	A
Total Power Dissipation	$P_D@TC=25$	85	W
Total Power Dissipation	$P_D@TA=25$	3.4	W
Operating Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	
Single Pulse Avalanche Energy@L=0.1mH	E_{AS}	240	mJ

Product Summary



○



Note:

;

Fig.1 Gate-Charge Characteristics

Fig.2 Capacitance Characteristics

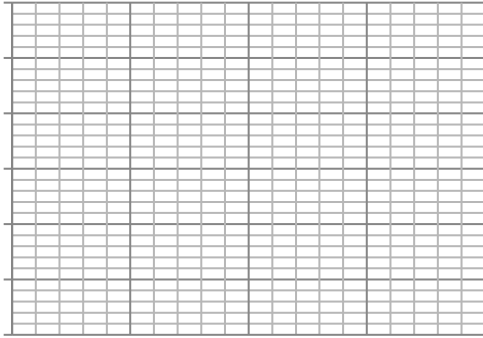


Fig.3 Power Dissipation

Fig.4 Typical output Characteristics

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

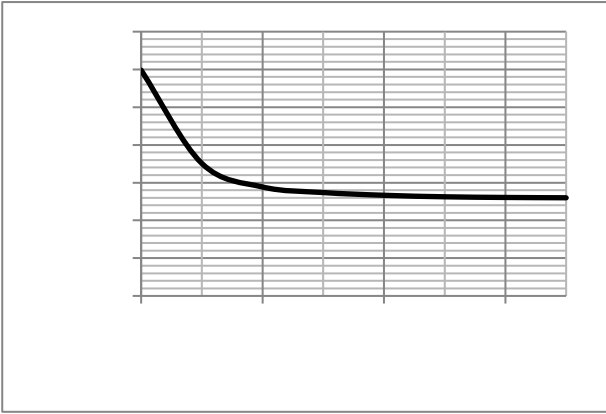


Fig.9 SOA Maximum Safe Operating Area

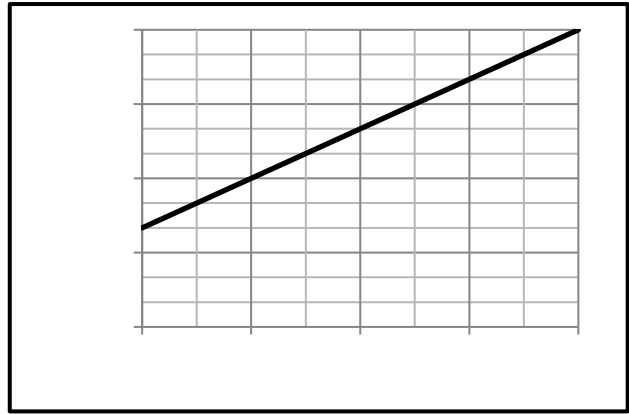


Fig.10 I_D -Junction Temperature

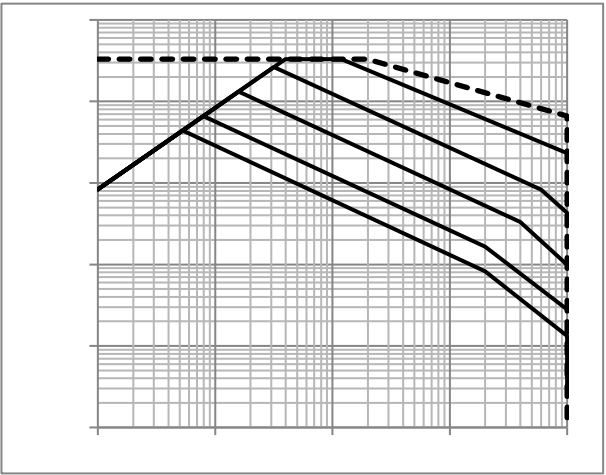


Fig.11 Switching Time Measurement Circuit

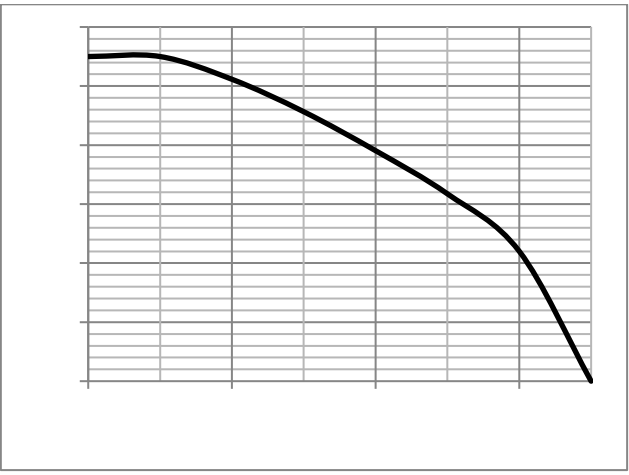


Fig.12 Gate Charge Waveform

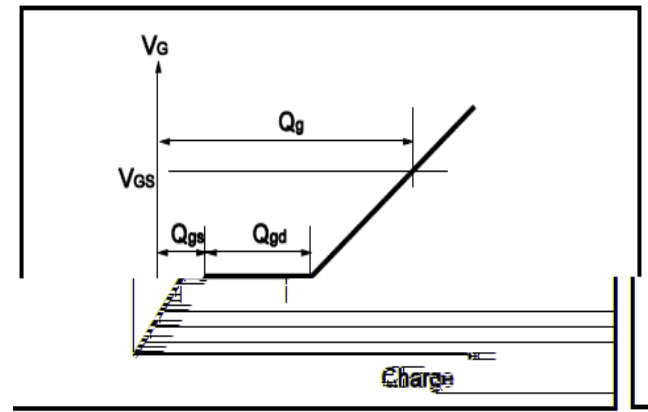
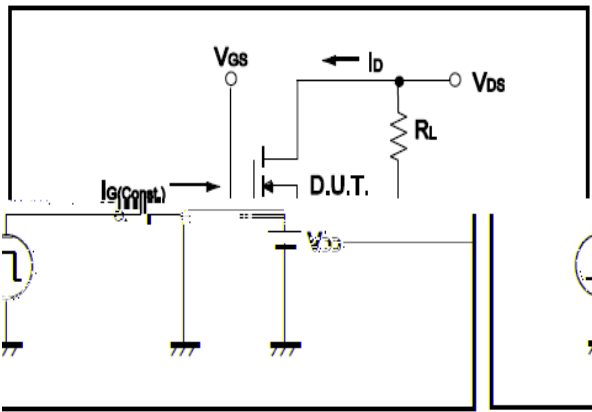


Fig.13 Switching Time Measurement Circuit

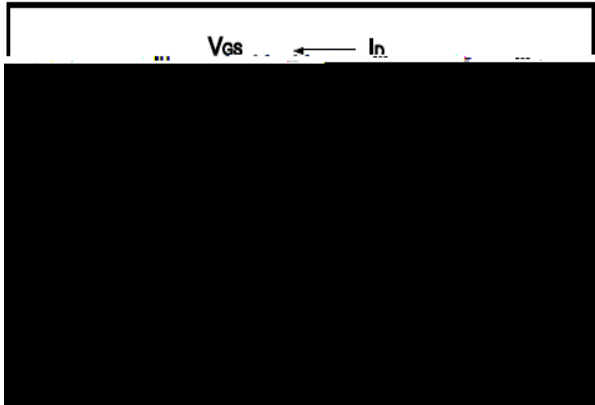


Fig.14 Gate Charge Waveform

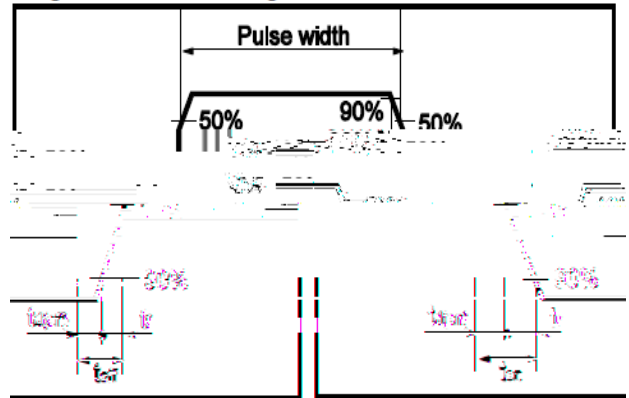


Fig.15 Avalanche Measurement Circuit

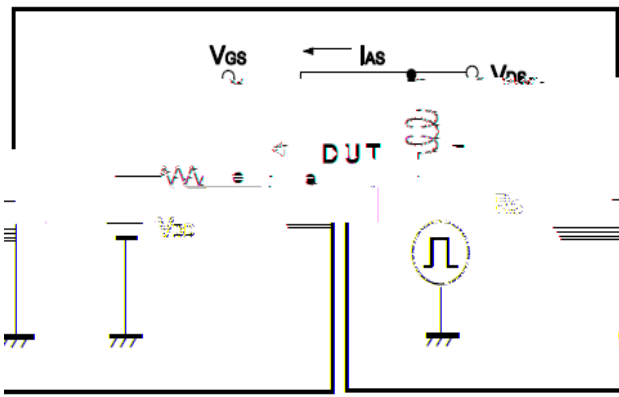
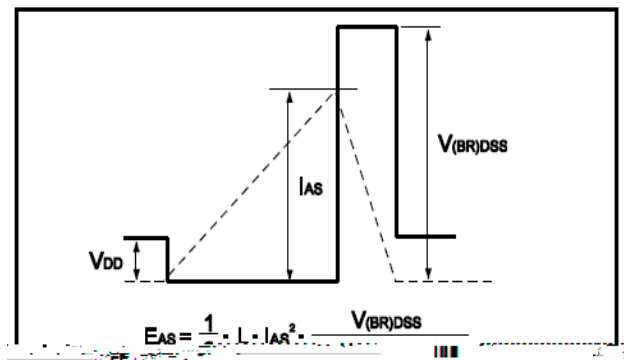


Fig.16 Avalanche Waveform





Dimensions (TO-220F)

Unit mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.40		4.95	e		2.54	
A ₁	2.30		2.90	L	12.50		14.30
b	0.45		0.90	L ₁	9.10		10.05
b ₁	1.10		1.70	L ₂	15.00		16.00
c	0.35		0.90	L ₃	3.00		4.00
D	14.50		17.00	øp	3.00		3.50
D1	6.10		9.00	Q	2.30		2.80
E	9.60		10.30				

