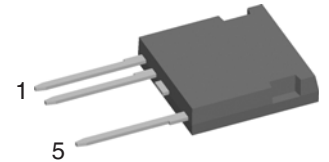
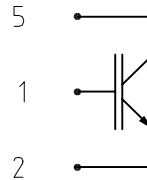


High Voltage BIMOSFET™

in High Voltage ISOPLUS i4-PAC™

Monolithic Bipolar MOS Transistor



$$I_{C25} = 7 \text{ A}$$

$$V_{CES} = 1600 \text{ V}$$

$$V_{CE(sat)} = 4.9 \text{ V}$$

$$t_f = 70 \text{ ns}$$

IGBT		
Symbol	Conditions	Maximum Ratings
V_{CES}	$T_{VJ} = 25^\circ\text{C to } 150^\circ\text{C}$	1600 V
V_{GES}		± 20 V
I_{C25}	$T_C = 25^\circ\text{C}$	7 A
I_{C90}	$T_C = 90^\circ\text{C}$	4 A
I_{CM} V_{CEK}	$V_{GE} = 10/0 \text{ V}; R_G = 27 \Omega; T_{VJ} = 125^\circ\text{C}$ RBSOA, Clamped inductive load; $L = 100 \mu\text{H}$	12 A $0.8 \cdot V_{CES}$
P_{tot}	$T_C = 25^\circ\text{C}$	70 W

Symbol	Conditions	Characteristic Values ($T_{VJ} = 25^\circ\text{C}$, unless otherwise specified)			
		min.	typ.	max.	
$V_{CE(sat)}$	$I_C = 5 \text{ A}; V_{GE} = 15 \text{ V}; T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 125^\circ\text{C}$		4.9 5.6	7 V V	
$V_{GE(th)}$	$I_C = 0.5 \text{ mA}; V_{GE} = V_{CE}$	3.5		5.5 V	
I_{CES}	$V_{CE} = 0.8V_{CES}; V_{GE} = 0 \text{ V}; T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 125^\circ\text{C}$		0.1	0.1 mA mA	
I_{GES}	$V_{CE} = 0 \text{ V}; V_{GE} = \pm 20 \text{ V}$			500 nA	
$t_{d(on)}$ t_r $t_{d(off)}$ t_f	Inductive load, $T_{VJ} = 125^\circ\text{C}$ $V_{CE} = 960 \text{ V}; I_C = 5 \text{ A}$ $V_{GE} = 10/0 \text{ V}; R_G = 27 \Omega$		140 200 120 70	ns ns ns ns	
C_{ies}		$V_{CE} = 25 \text{ V}; V_{GE} = 0 \text{ V}; f = 1 \text{ MHz}$		550	pF
Q_{Gon}		$V_{CE} = 600 \text{ V}; V_{GE} = 10 \text{ V}; I_C = 5 \text{ A}$		34	nC
V_F		(reverse conduction); $I_F = 5 \text{ A}$		3.6	V
R_{thJC}				1.75 KW	

Features

- High Voltage BIMOSFET™
 - substitute for high voltage MOSFETs with significantly lower voltage drop
 - MOSFET compatible control 10 V turn on gate voltage
 - fast switching for high frequency operation
 - reverse conduction capability
- ISOPLUS i4-PAC™ high voltage package
 - isolated back surface
 - enlarged creepage towards heatsink
 - enlarged creepage between high voltage pins
 - application friendly pinout
 - high reliability
 - industry standard outline

Applications

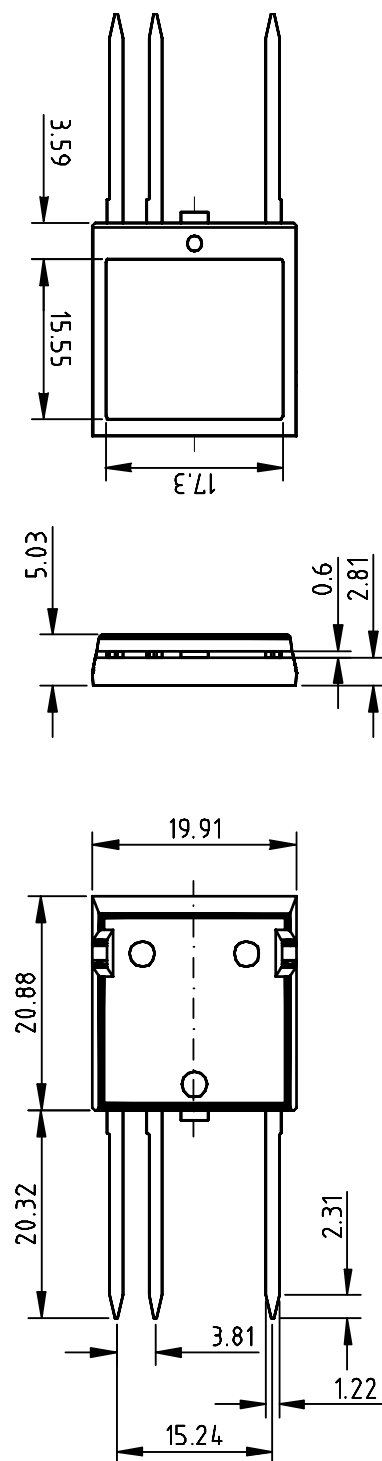
- switched mode power supplies
- DC-DC converters
- resonant converters
- lamp ballasts
- laser generators, x ray generators

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}		-55...+150	°C
T_{stg}		-55...+125	°C
V_{ISOL}	$I_{ISOL} \leq 1 \text{ mA}; 50/60 \text{ Hz}$	2500	V~
F_c	mounting force with clip	20...120	N

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
d_S, d_A	pin 2 - pin 5	7		mm
d_S, d_A	pin - backside metal	5.5		mm
R_{thCH}	with heatsink compound		0.15	K/W
Weight			9	g

Dimensions in mm (1 mm = 0.0394")



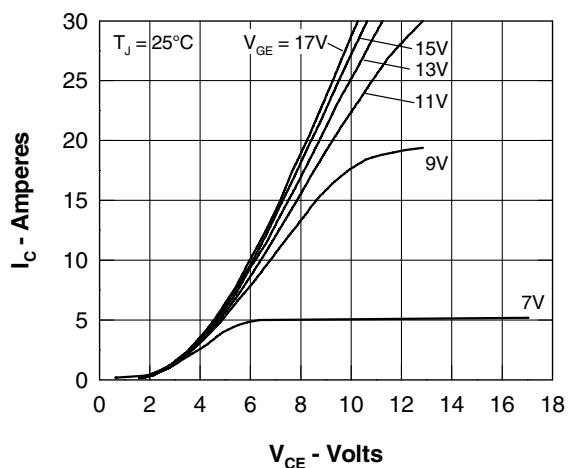


Fig. 1 Typ. Output Characteristics

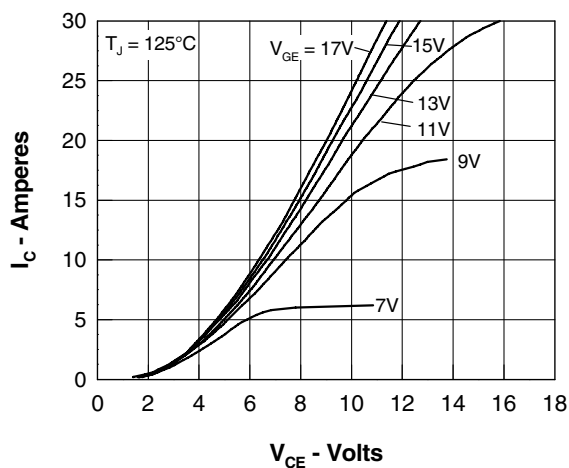


Fig. 2 Typ. Output Characteristics

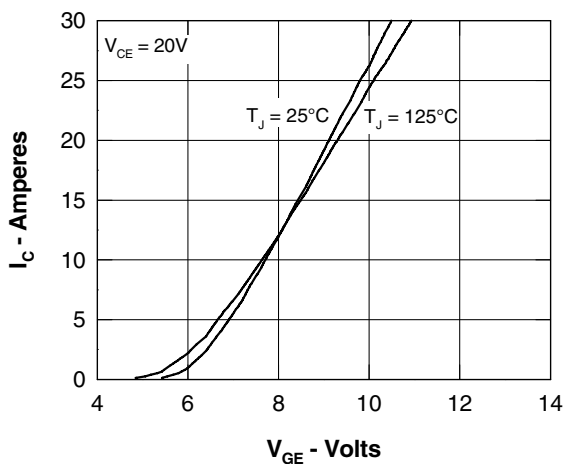


Fig. 3 Typ. Transfer Characteristics

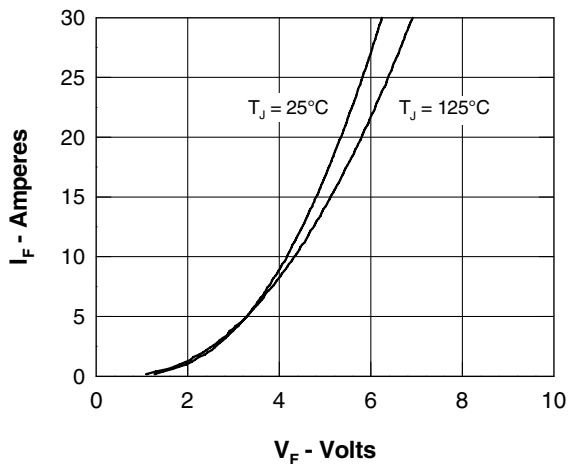


Fig. 4 Typ. Characteristics of Reverse Conduction

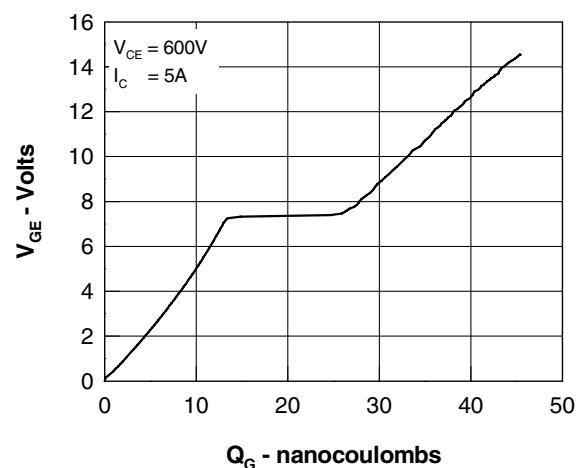


Fig. 5 Typ. Gate Charge characteristics

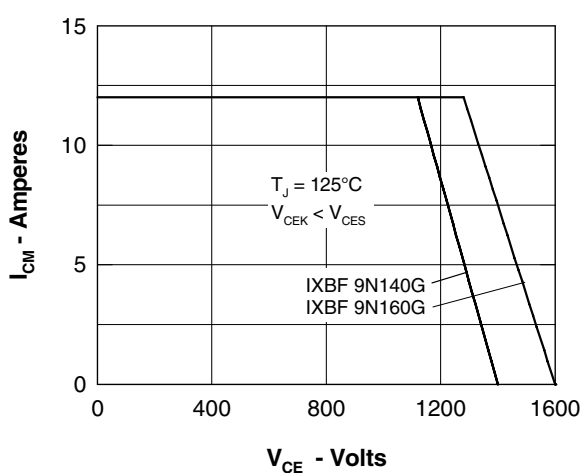


Fig. 6 Reverse Biased Safe Operating Area RBSOA

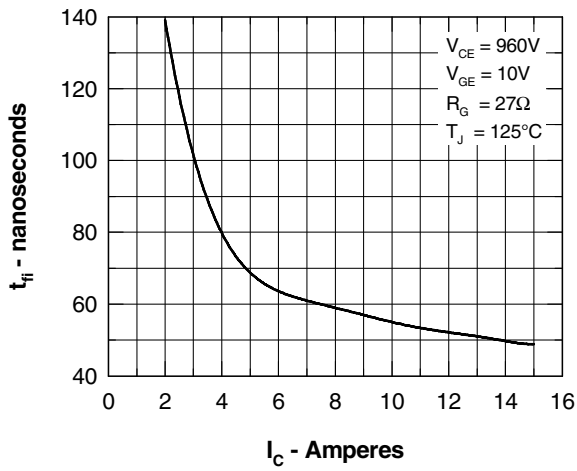


Fig. 7 Typ. Fall Time

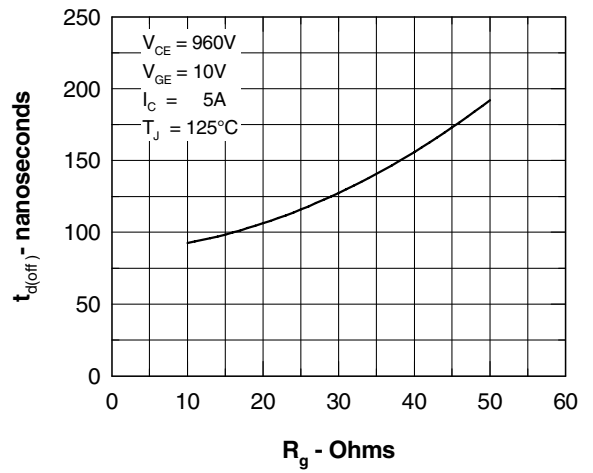


Fig. 8 Typ. Turn Off Delay Time

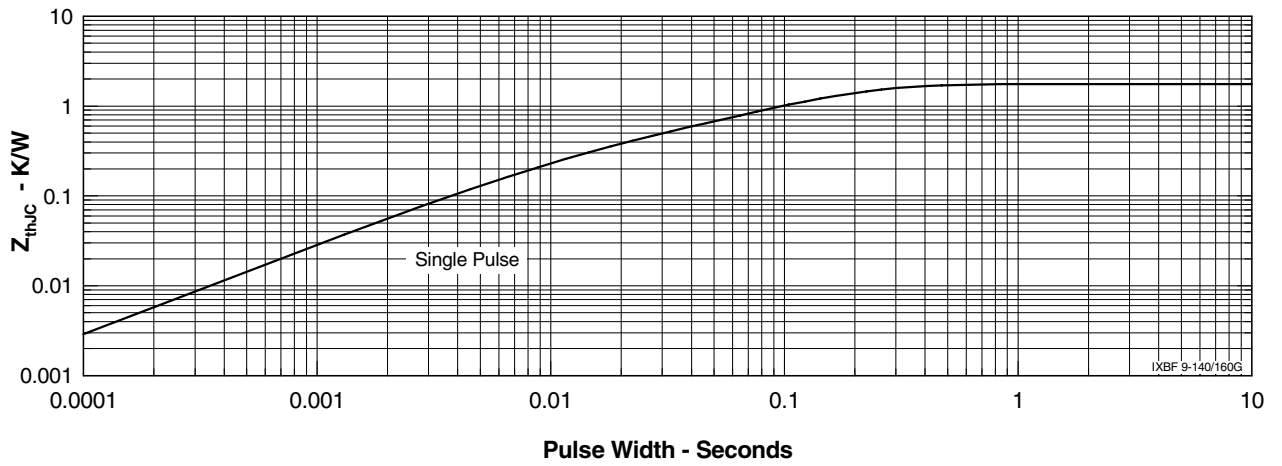


Fig. 9 Typ. Transient Thermal Impedance



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/disclaimer-electronics.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [IGBT Transistors](#) category:

Click to view products by [IXYS](#) manufacturer:

Other Similar products are found below :

[748152A](#) [APT20GT60BRDQ1G](#) [APT50GT60BRG](#) [NGTB10N60FG](#) [STGFW20V60DF](#) [APT30GP60BG](#) [APT45GR65B2DU30](#)
[GT50JR22\(STA1ES\)](#) [TIG058E8-TL-H](#) [IGW40N120H3FKSA1](#) [VS-CPV364M4KPBF](#) [NGTB25N120FL2WAG](#) [NGTG40N120FL2WG](#)
[RJH60F3DPQ-A0#T0](#) [APT40GR120B2SCD10](#) [APT15GT120BRG](#) [APT20GT60BRG](#) [NGTB75N65FL2WAG](#) [NGTG15N120FL2WG](#)
[IXA30RG1200DHGLB](#) [IXA40RG1200DHGLB](#) [APT70GR65B2DU40](#) [NTE3320](#) [QP12W05S-37A](#) [IHF40N65R5SXXSA1](#) [APT70GR120J](#)
[APT35GP120JDQ2](#) [IKZA40N65RH5XKSA1](#) [IKFW75N65ES5XKSA1](#) [IKFW50N65ES5XKSA1](#) [IKFW50N65EH5XKSA1](#)
[IKFW40N65ES5XKSA1](#) [IKFW60N65ES5XKSA1](#) [IMBG120R090M1HXTMA1](#) [IMBG120R220M1HXTMA1](#) [XD15H120CX1](#)
[XD25H120CX0](#) [XP15PJS120CL1B1](#) [IGW30N60H3FKSA1](#) [STGWA8M120DF3](#) [IGW08T120FKSA1](#) [IGW75N60H3FKSA1](#)
[FGH60N60SMD_F085](#) [FGH75T65UPD](#) [STGWA15H120F2](#) [IKA10N60TXKSA1](#) [IHW20N120R5XKSA1](#) [RJH60D2DPP-M0#T2](#)
[IKP20N60TXKSA1](#) [IHW20N65R5XKSA1](#)