

FGA15N120ANTDTU

1200 V, 15 A NPT Trench IGBT

Features

- NPT Trench Technology, Positive temperature coefficient
- Low Saturation Voltage: $V_{CE(sat), typ}$

		C	30	A
	Diode Continuous Forward Current	@ $T_C = 100\text{ C}$	15	A
I_{FM}	Diode Maximum Forward Current		45	A
P_D	Maximum Power Dissipation	@ $T_C = 25\text{ C}$	186	W
	Maximum Power Dissipation	@ $T_C = 100\text{ C}$	74	W
T_J	Operating Junction Temperature		-55 to +150	C
T_{stg}	Storage Temperature Range		-55 to +150	C
T_L	Maximum Lead Temp. for soldering Purposes, 1/8" from case for 5 seconds		300	C

Symbol	Parameter	Typ.	Max.	Unit
R_{JC}	Thermal Resistance, Junction-to-Case for IGBT	--	0.67	C/W
R_{JC}	Thermal Resistance, Junction-to-Case for Diode	--	2.88	C/W
R_{JA}	Thermal Resistance, Junction-to-Ambient	--	40	C/W

Notes:

(1) Repetitive rating: Pulse width limited by max. junction temperature

Package Marking and Ordering Information

Part Number	Top Mark	Package	Packing Method
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Electrical Characteristics of the IGBT T_C = 25°C unless otherwise noted

Electrical Characteristics of DIODE $T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
V_{FM}	Diode Forward Voltage	$I_F = 15\text{ A}$	$T_C = 25\text{ C}$	--	1.7	2.7	V
			$T_C = 125\text{ C}$	--	1.8	--	
t_{rr}	Diode Reverse Recovery Time	$I_F = 15\text{ A}$ $di_F/dt = 200\text{ A/s}$	$T_C = 25\text{ C}$	--	210	330	ns
			$T_C = 125\text{ C}$	--	280	--	
I_{rr}	Diode Peak Reverse Recovery Current		$T_C = 25\text{ C}$	--	27	40	A
			$T_C = 125\text{ C}$	--	31	--	
Q_{rr}	Diode Reverse Recovery Charge		$T_C = 25\text{ C}$	--	2835	6600	nC
			$T_C = 125\text{ C}$	--	4340	--	



Typical Performance Characteristics (Continued)

Figure 7. Turn-On Characteristics vs. Gate Resistance

Figure 8. Turn-Off Characteristics vs. Gate Resistance

Mechanical Dimensions

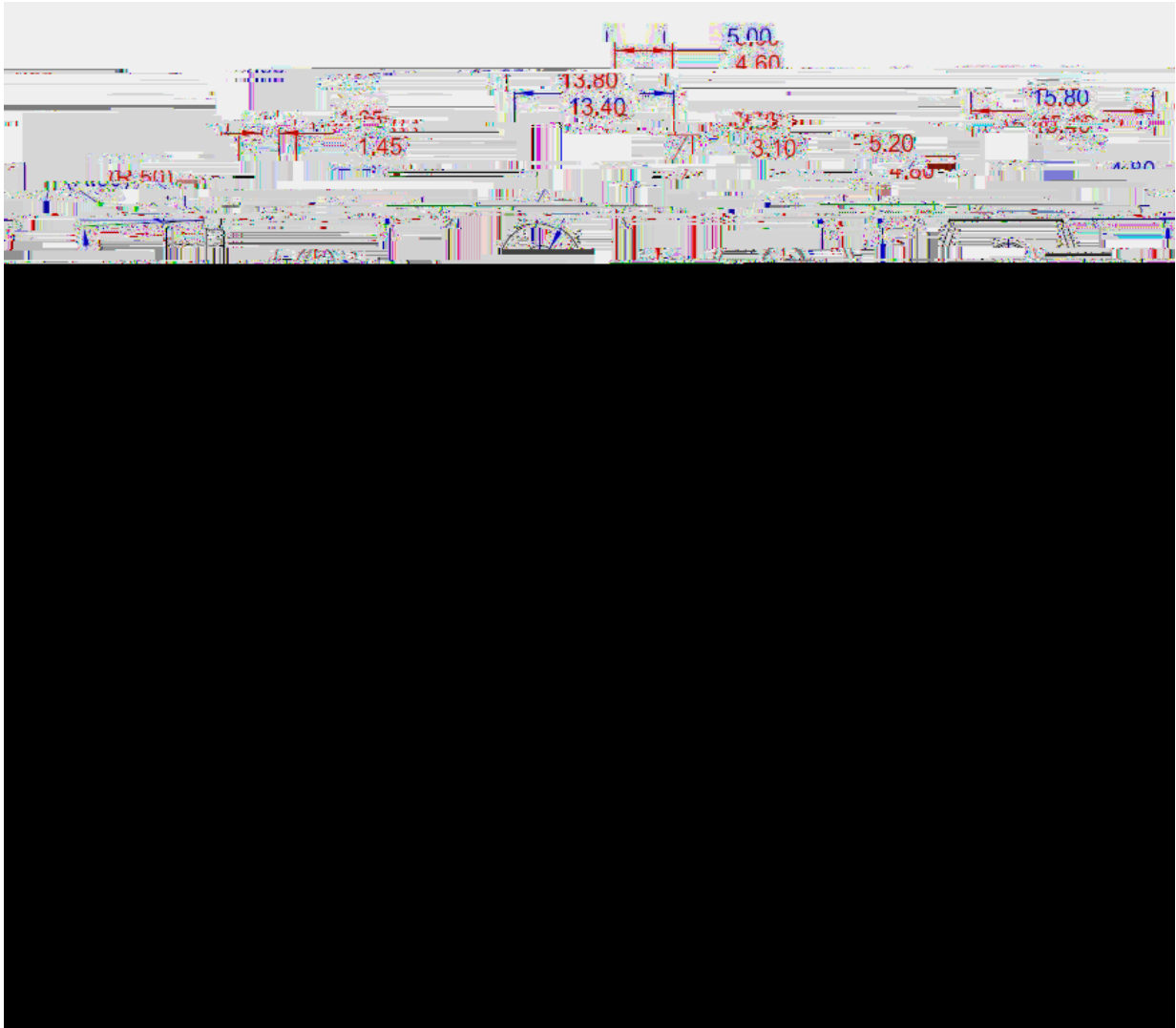


Figure 21. TO-3P 3L - 3LD, T03, PLASTIC, EIAJ SC-65

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