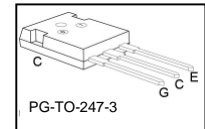
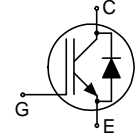


Low Loss DuoPack : IGBT in **TrenchStop®** and Fieldstop technology with soft, fast recovery anti-parallel Emitter Controlled HE diode

- Best in class TO247
- Short circuit withstand time – 10µs
- Designed for :
 - Frequency Converters
 - Uninterrupted Power Supply
- **TrenchStop®** and Fieldstop technology for 1200 V applications offers :
 - very tight parameter distribution
 - high ruggedness, temperature stable behavior
- NPT technology offers easy parallel switching capability due to positive temperature coefficient in $V_{CE(sat)}$
- Low EMI
- Low Gate Charge
- Very soft, fast recovery anti-parallel Emitter Controlled HE diode
- Qualified according to JEDEC¹ for target applications
- Pb-free lead plating; RoHS compliant
- Complete product spectrum and PSpice Models : <http://www.infineon.com/igbt/>



Type	V_{CE}	I_C	$V_{CE(sat), T_j=25^\circ C}$	$T_{j,max}$	Marking Code	Package
IKW40T120	1200V	40A	1.7V	150°C	K40T120	PG-TO-247-3

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V_{CE}	1200	V
DC collector current	I_C		A
$T_C = 25^\circ C$		75	
$T_C = 100^\circ C$		40	
Pulsed collector current, t_p limited by T_{jmax}	I_{Cpuls}	105	
Turn off safe operating area	-	105	
$V_{CE} \leq 1200V, T_j \leq 150^\circ C$			
Diode forward current	I_F		
$T_C = 25^\circ C$		80	
$T_C = 100^\circ C$		40	
Diode pulsed current, t_p limited by T_{jmax}	I_{Fpuls}	105	
Gate-emitter voltage	V_{GE}	± 20	V
Short circuit withstand time ²⁾	t_{SC}	10	µs
$V_{GE} = 15V, V_{CC} \leq 1200V, T_j \leq 150^\circ C$			
Power dissipation	P_{tot}	270	W
$T_C = 25^\circ C$			
Operating junction temperature	T_j	-40...+150	°C
Storage temperature	T_{stg}	-55...+150	

¹ J-STD-020 and JESD-022

²⁾ Allowed number of short circuits: <1000; time between short circuits: >1s.



TrenchStop[®] Series

IKW40T120

Soldering temperature, 1.6mm (0.063 in.) from case for 10s	-	260	
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