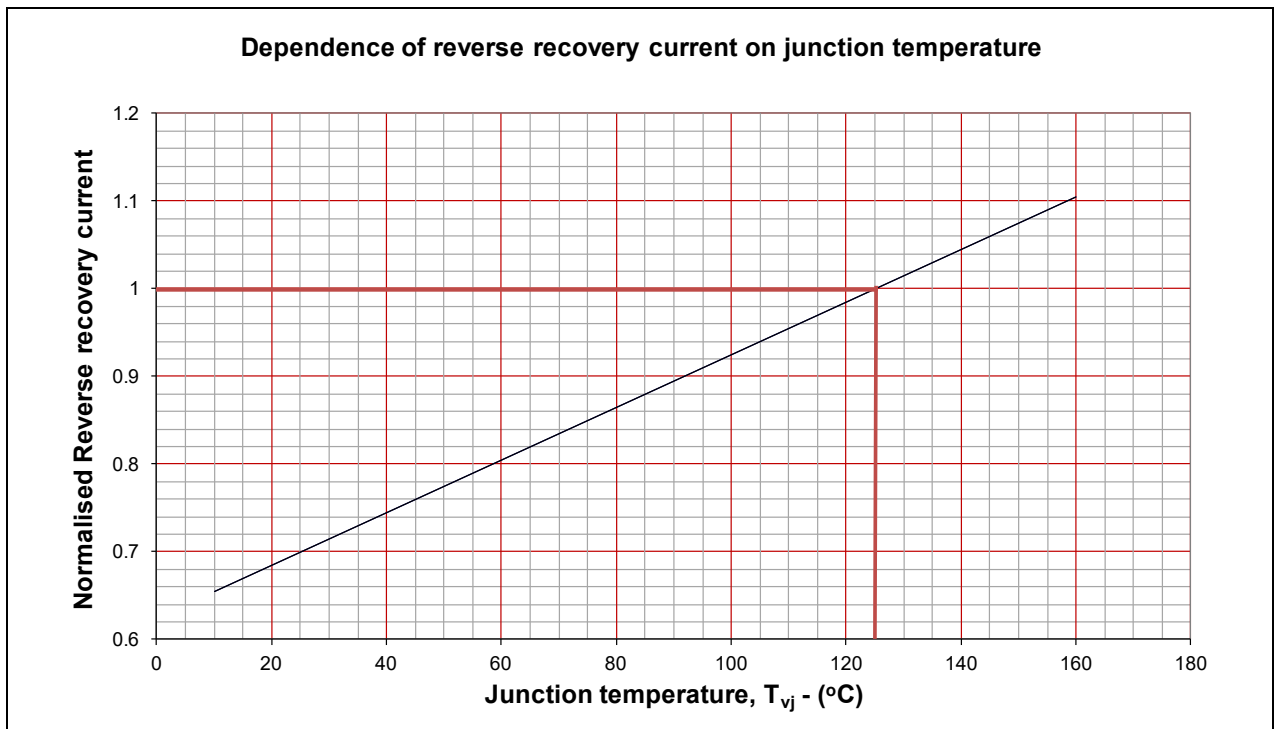
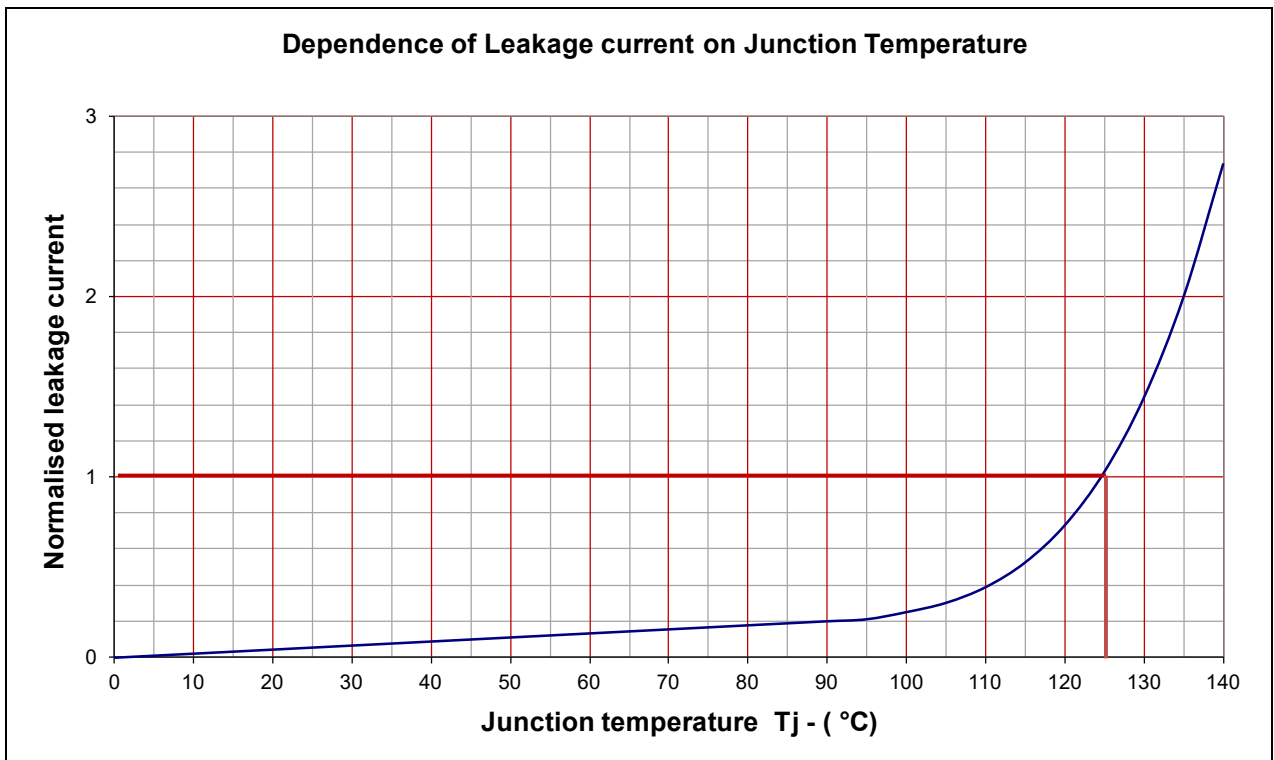
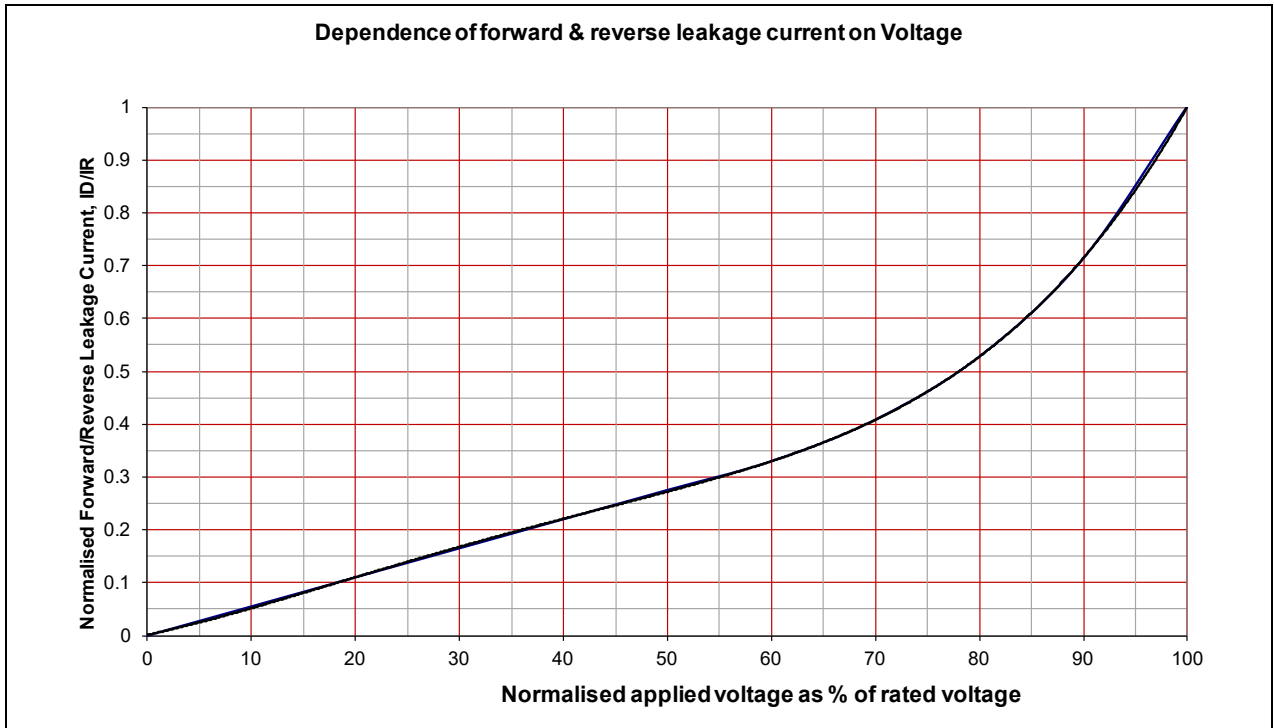


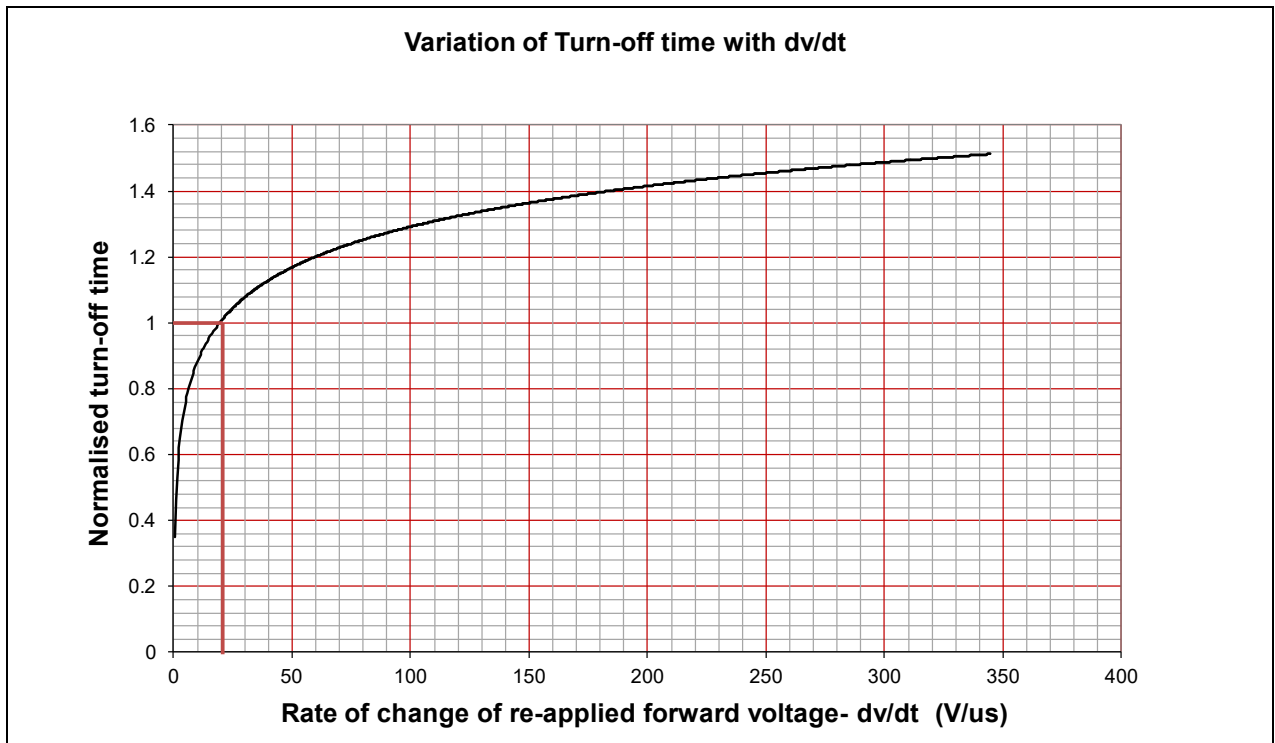
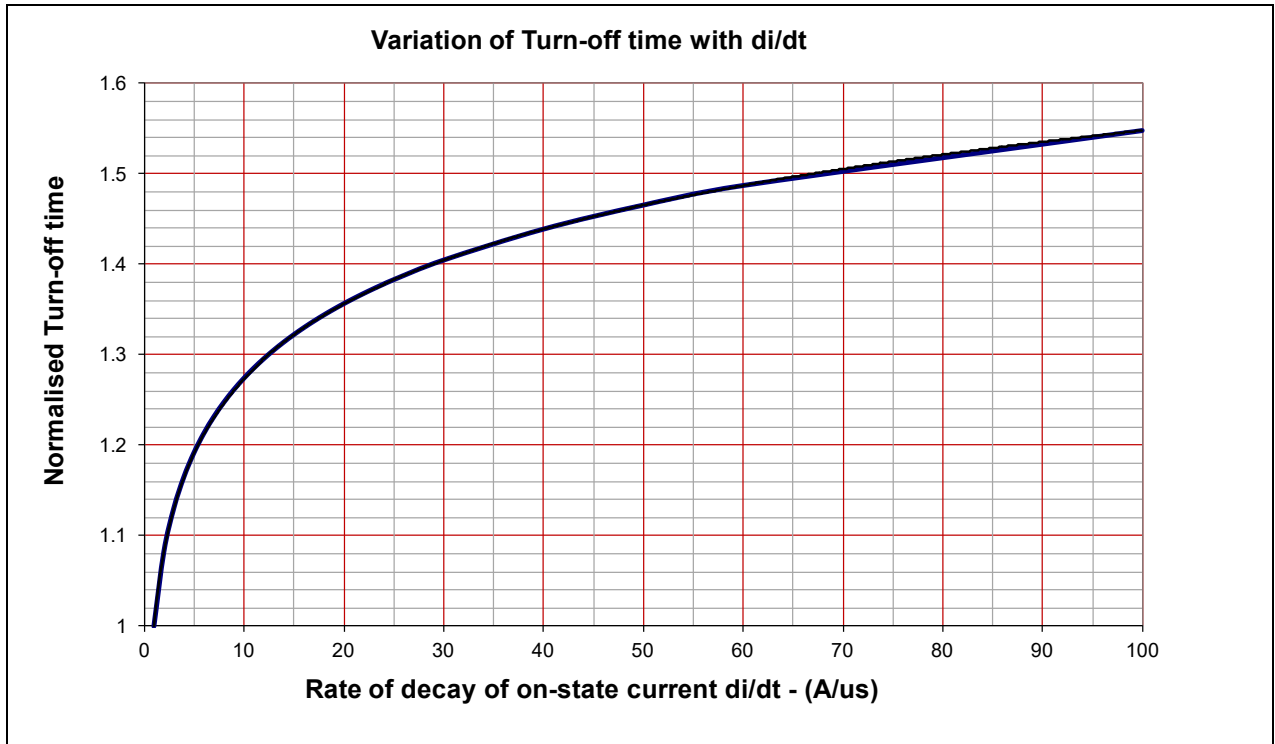
Introduction:

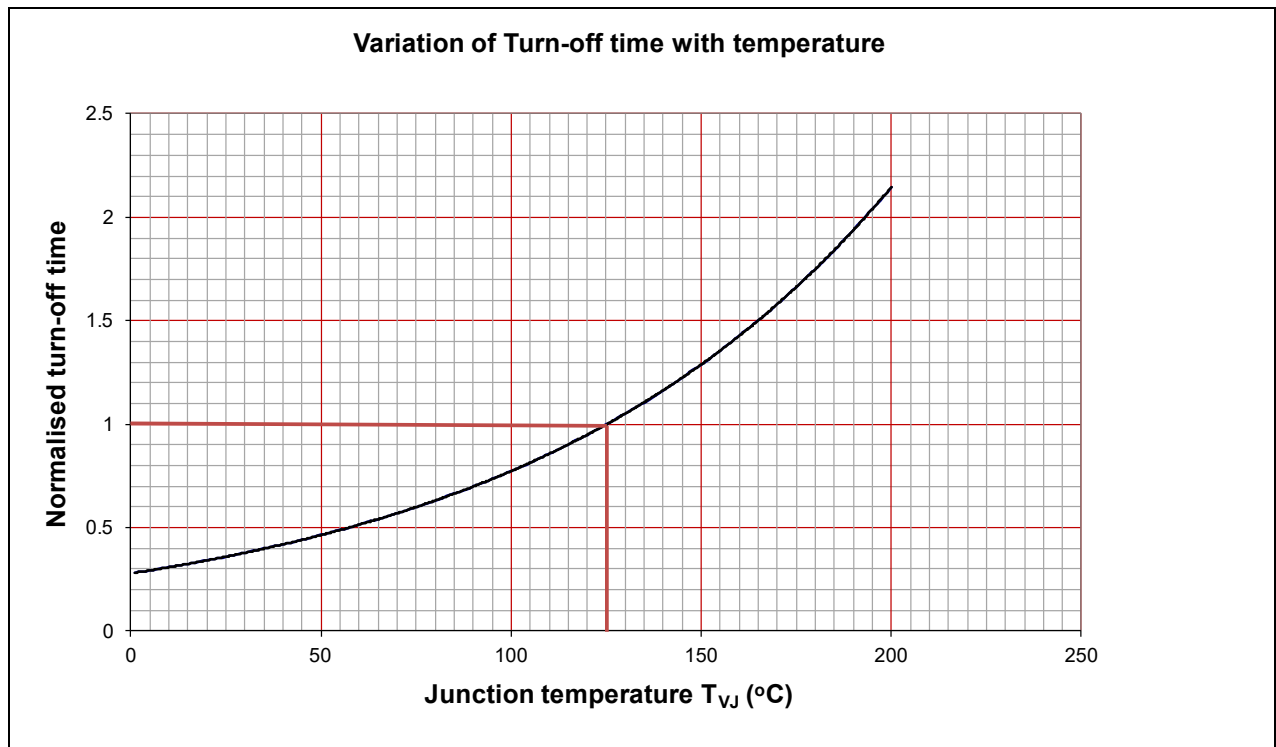
Datasheets tend to give device characteristics at a set of standard conditions. These characteristics are, however, dependent upon those conditions and if precise values are required under operating or test conditions then the factory should be consulted.

Several of these characteristics obey simple equations dependant on voltage and temperature such that values of the characteristics under different conditions can be estimated from normalised graphs such as those given below.









The graphs for the variation in turn-off time with temperature, re-applied voltage and di/dt can be combined into an EXCEL spreadsheet to estimate the turn-off time under conditions different to the datasheet conditions

A	B	C	D
Datasheet conditions			
data sheet tq	200	us	
di/dt	50	A/us	=0.0937*LN(B4)+0.7874
dv/vt	20	V/us	=0.178*LN(B5) + 0.4721
temp	125	*C	=0.2791*EXP(0.0102*B6)
Required conditions			
di/dt	5	A/us	=0.0937*LN(B10)+0.7874
dv/vt	20	V/us	=0.178*LN(B11) + 0.4721
temp	125	*C	=0.2791*EXP(0.0102*B12)
resultant tq	=B3*D10*D11*D12/(D4*D5*D6)		μs

IMPORTANT INFORMATION:

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The products and information in this publication are intended for use by appropriately trained technical personnel.

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Extended exposure to conditions outside the product ratings may affect reliability leading to premature product failure. Use outside the product ratings is likely to cause permanent damage to the product. In extreme conditions, as with all semiconductors, this may include potentially hazardous rupture, a large current to flow or high voltage arcing, resulting in fire or explosion. Appropriate application design and safety precautions should always be followed to protect persons and property.

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Preliminary Information:	The product design is complete and final characterisation for volume production is in progress. The datasheet represents the product as it is now understood but details may change.
No Annotation:	The product has been approved for production and unless otherwise notified by Dynex any product ordered will be supplied to the current version of the data sheet prevailing at the time of our order acknowledgement.

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HEADQUARTERS OPERATIONS

DYNEX SEMICONDUCTOR LIMITED
Doddington Road, Lincoln, Lincolnshire, LN6 3LF
United Kingdom.
Phone: +44 (0) 1522 500500
Web: <http://www.dynexsemi.com>

CUSTOMER SERVICE

Phone: +44 (0) 1522 502753 / 502901
e-mail: powersolutions@dynexsemi.com