STATIC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_R *	Reverse leakage current	T_j = 25°C	$V_R = V_{RRM}$			3	µA
		T_j = 125°C			4	75	
V_F **	Forward voltage drop	T_j = 25°C	I_F = 3A			0.95	V
		T_j = 125°C			0.66	0.75	

Pulse test : * tp = 5 ms, δ < 2 %
** tp = 380 µs, δ < 2 %

To evaluate the maximum conduction losses use the following equations:
$P = 0.60 \times I_{F(AV)} + 0.05\ I_F^{2}{}_{(RMS)}$

DYNAMIC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions		Min.	Typ.	Max.	Unit
trr	Reverse recovery time	I_F = 1A dI_F/dt = - 50A/µs V_R = 30V	T_j = 25°C			35	ns
tfr	Forward recovery time	I_F = 3A dI_F/dt = 50A/µs $V_{FR} = 1.1 \times V_F$ max	T_j = 25°C		70		ns
V_{FP}	Forward recovery voltage		T_j = 25°C		1.6		V

Fig. 1: Average forward power dissipation versus average forward current.

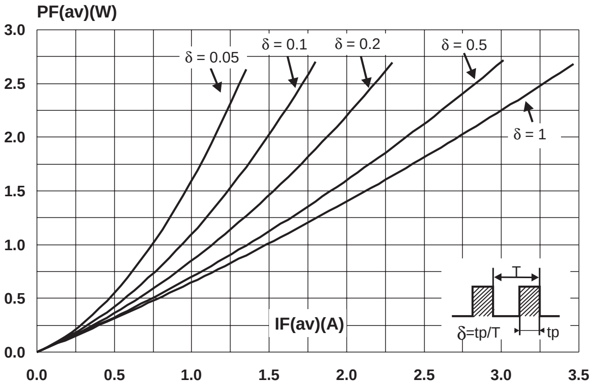


Fig. 2: Average forward current versus ambient temperature (δ=0.5).

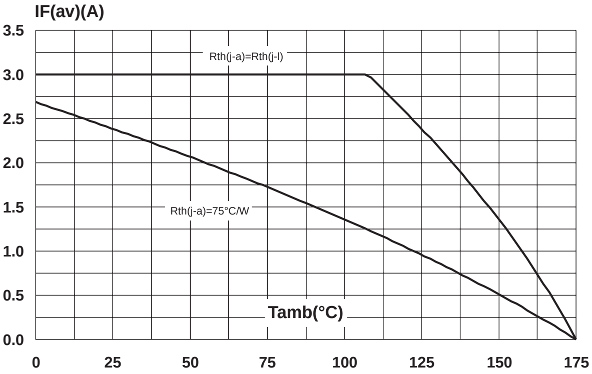


Fig. 3: Thermal resistance versus lead length.

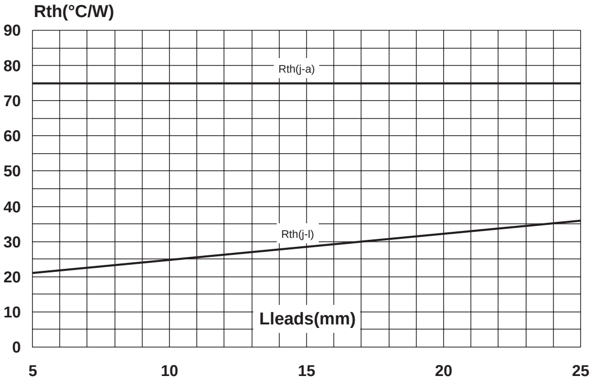


Fig. 4: Relative variation of thermal impedance junction ambient versus pulse duration (printed circuit board epoxy FR4, Lleads = 10mm).

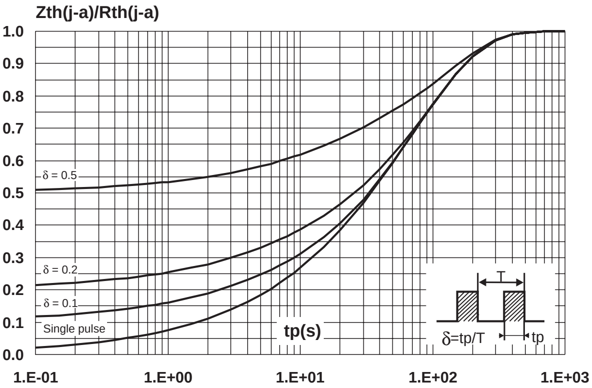


Fig. 5: Forward voltage drop versus forward current.

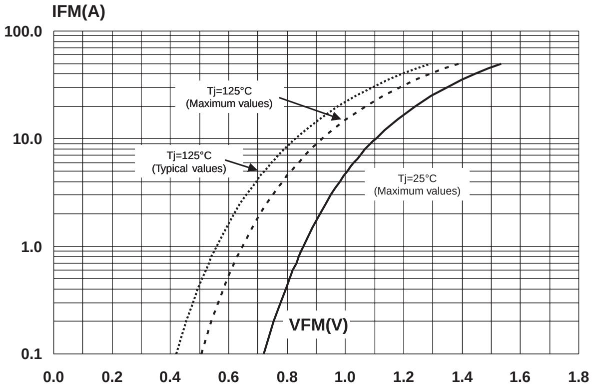


Fig. 6: Junction capacitance versus reverse voltage applied (typical values).

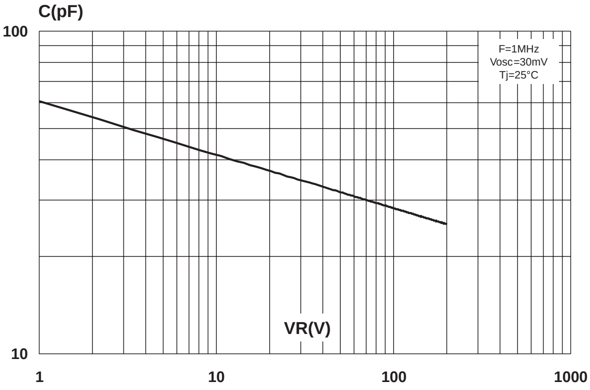


Fig. 7: Reverse recovery time versus dI_F/dt (90% confidence).

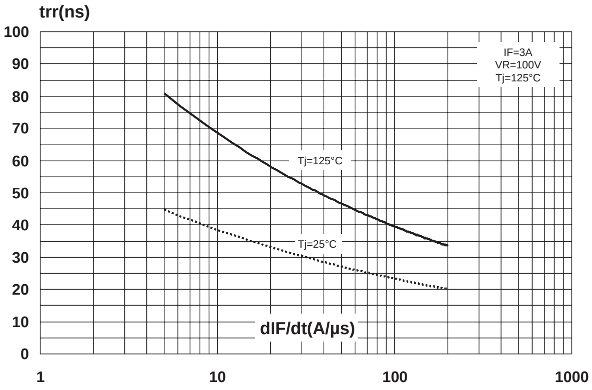


Fig. 8: Peak reverse recovery current versus dI_F/dt (90% confidence).

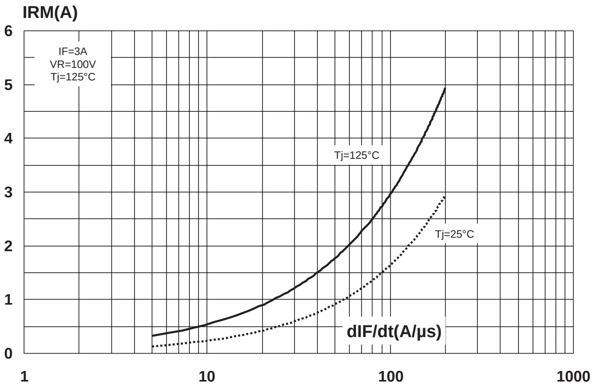
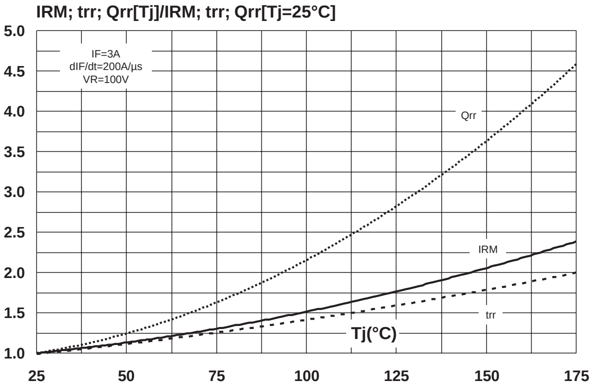
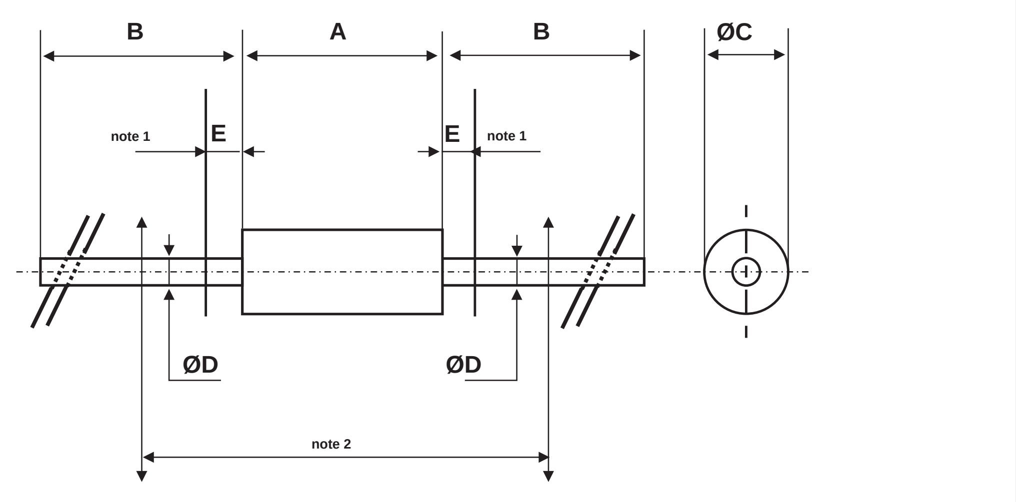


Fig. 9: Relative variations of dynamic parameters versus junction temperature.



PACKAGE MECHANICAL DATA

DO-201AD



REF.	DIMENSIONS				NOTES
	Millimeters		Inches		
	Min.	Max.	Min.	Max.	
A		9.50		0.374	1 - The lead diameter ∅ D is not controlled over zone E 2 - The minimum axial length within which the device may be placed with its leads bent at right angles is 0.59"(15 mm)
B	25.40		1.000		
∅ C		5.30		0.209	
∅ D		1.30		0.051	
E		1.25		0.049	

Ordering code	Marking	Package	Weight	Base qty	Delivery mode
STTH302	STTH302	DO-201AD	1.16 g	600	Ammopack
STTH302RL	STTH302	DO-201AD	1.16 g	1900	Tape and reel

- White band indicates cathode
- Epoxy meets UL94,V0

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