

• FEATURES

- Extremely low V_F .
- Low stored charge, majority carrier conduction.
- Low power loss/high efficient

• APPLICATIONS

- For Use In Low Voltage, High Frequency Inverters.
- Free Wheeling, And Polarity Protection Applications.

• ORDERING INFORMATION



Type No.	Marking	Package Code
B5817WS	SJ.	SOD-323G
B5819WS	.SL.	SOD-323G

• MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	symbol	B5817WS	B5819WS	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	40	V
Peak repetitive Peak reverse voltage Working Peak Reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	28	V
Average Rectified output Current	I_o	1		A
Peak forward surge current@=8.3ms	I_{FSM}	20		A
Power Dissipation	P_d	250		mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500		$^{\circ}\text{C}/\text{W}$
Storage temperature	T_{STG}	-65~+150		$^{\circ}\text{C}$

• ELECTRICAL CHARACTERISTICS @ Ta=25 °C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$ B5817WS B5819WS	20 40		V
Reverse voltage leakage current	I_R	$V_R=20$ $V_R=40\text{V}$ B5817WS B5819WS		1	mA
Forward voltage	V_F	B5817WS $I_F=1\text{A}$		0.45	V
		B5817WS $I_F=3\text{A}$		0.75	
		B5819WS $I_F=1\text{A}$		0.6	
		B5819WS $I_F=3\text{A}$		0.9	
Diode capacitance	C_D	$V_R=4\text{V}, f=1\text{MHz}$		120	pF

• TYPICAL CHARACTERISTICS @ Ta=25 °C unless otherwise specified

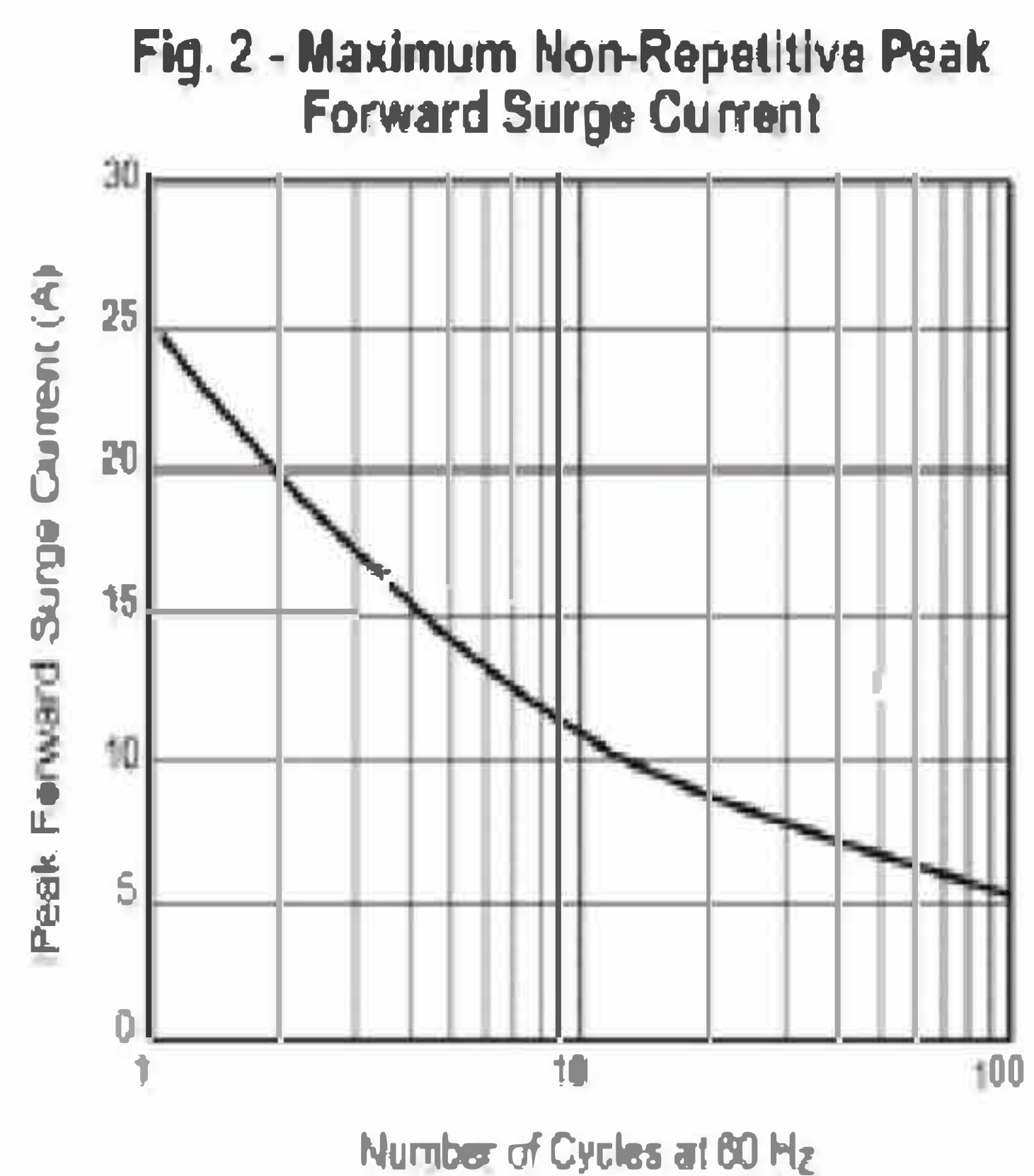
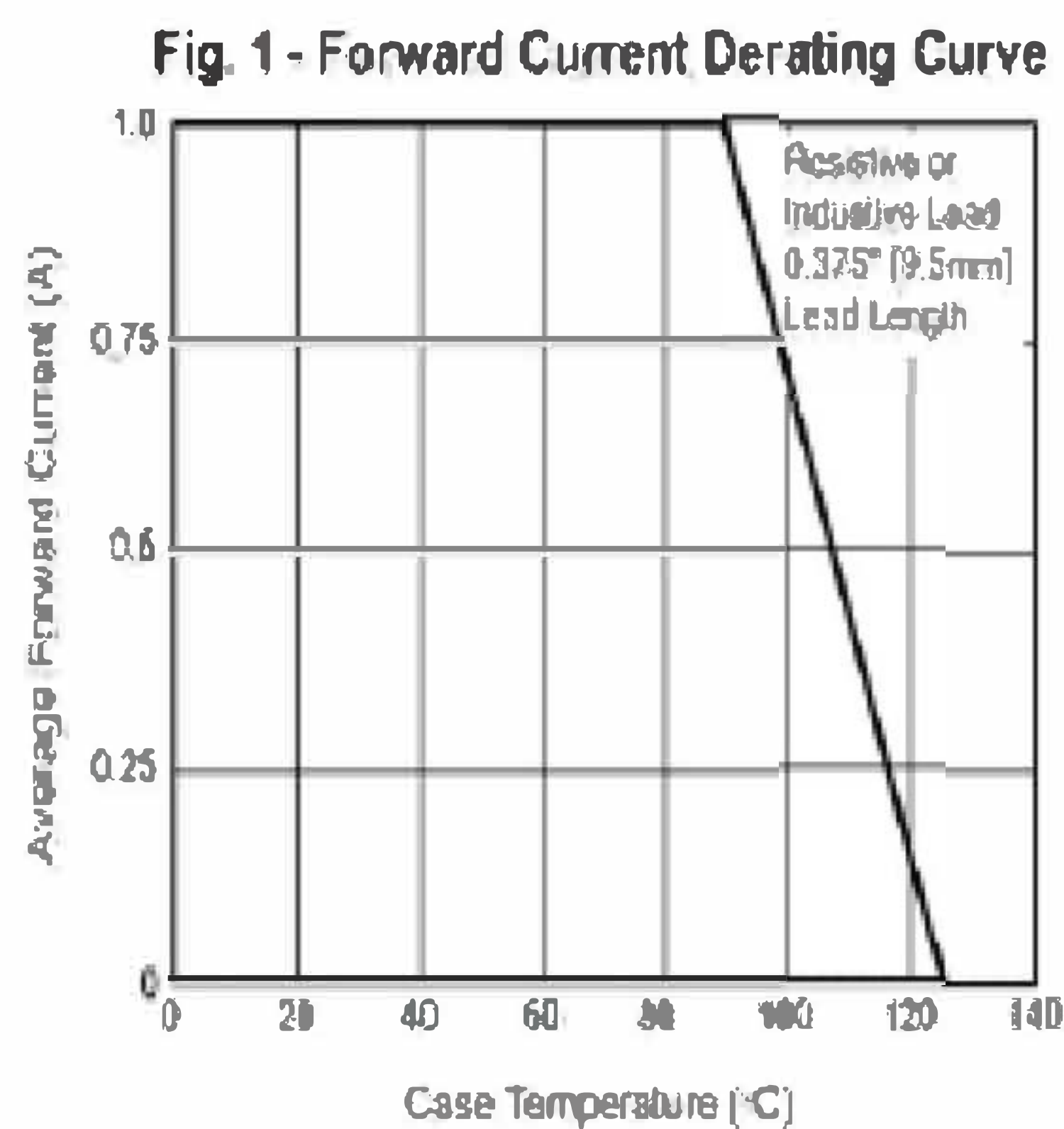


Fig. 3 - Typical Instantaneous Forward Characteristics

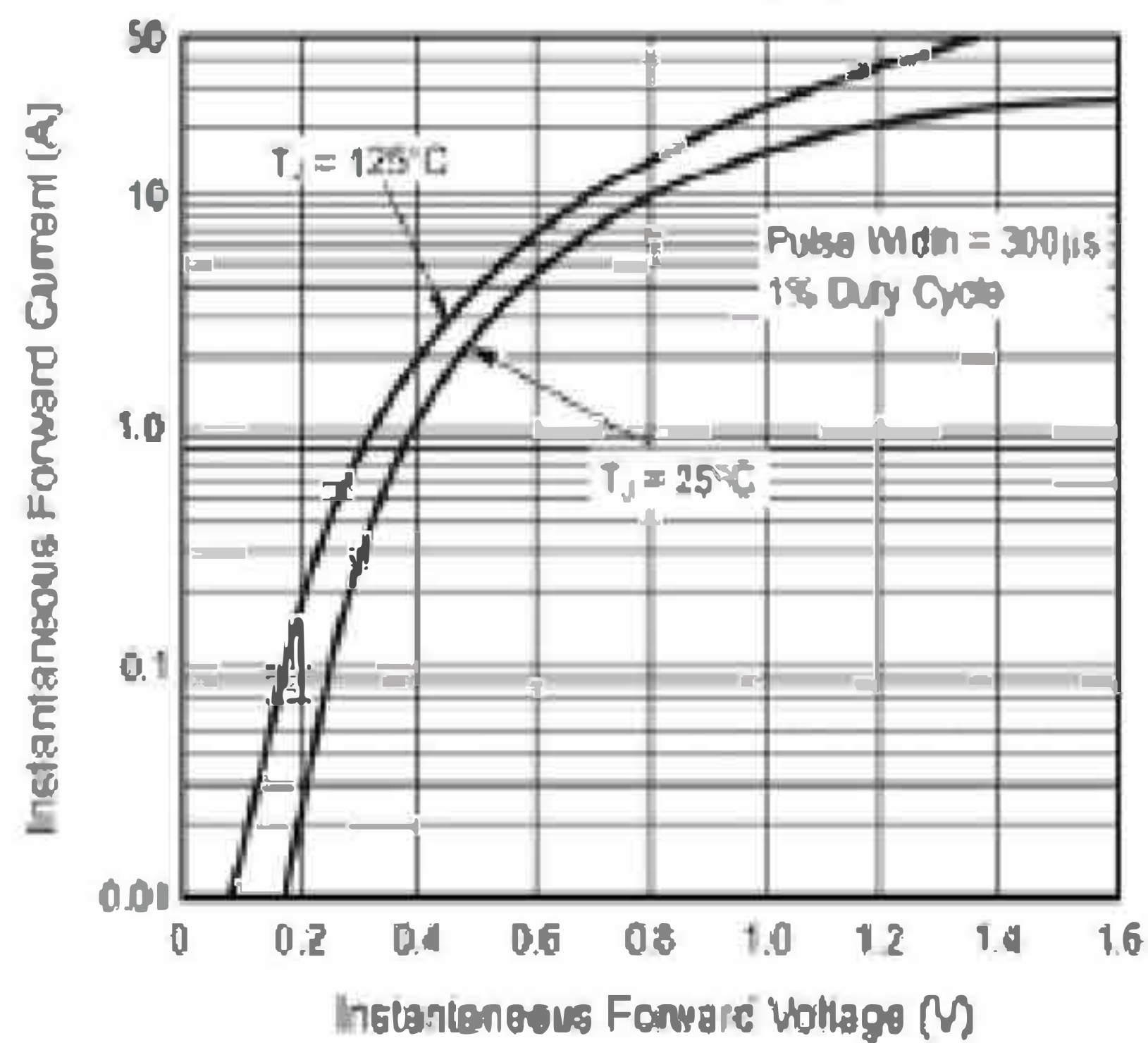


Fig. 4 - Typical Reverse Characteristics

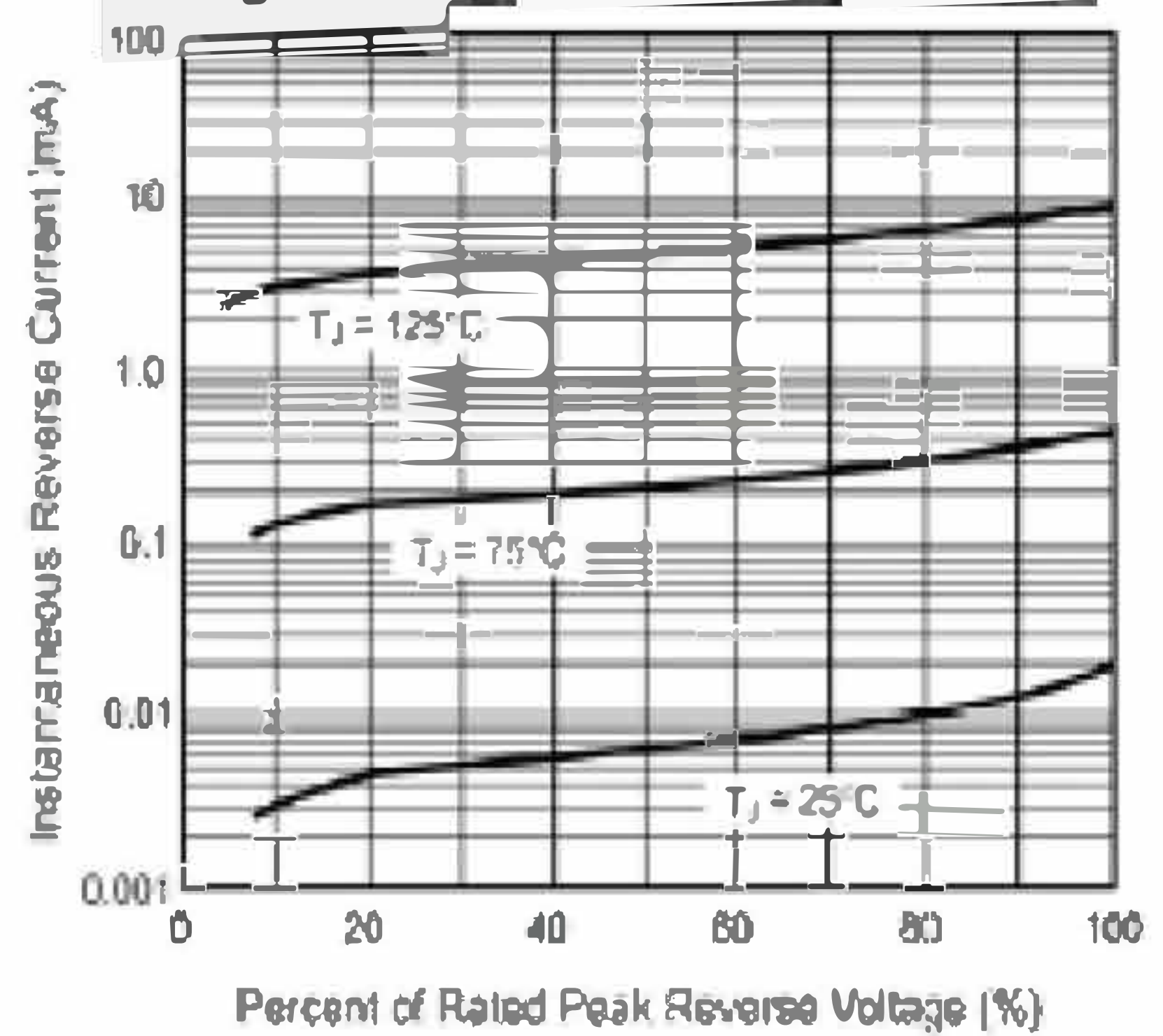


Fig. 5 - Typical Junction Capacitance

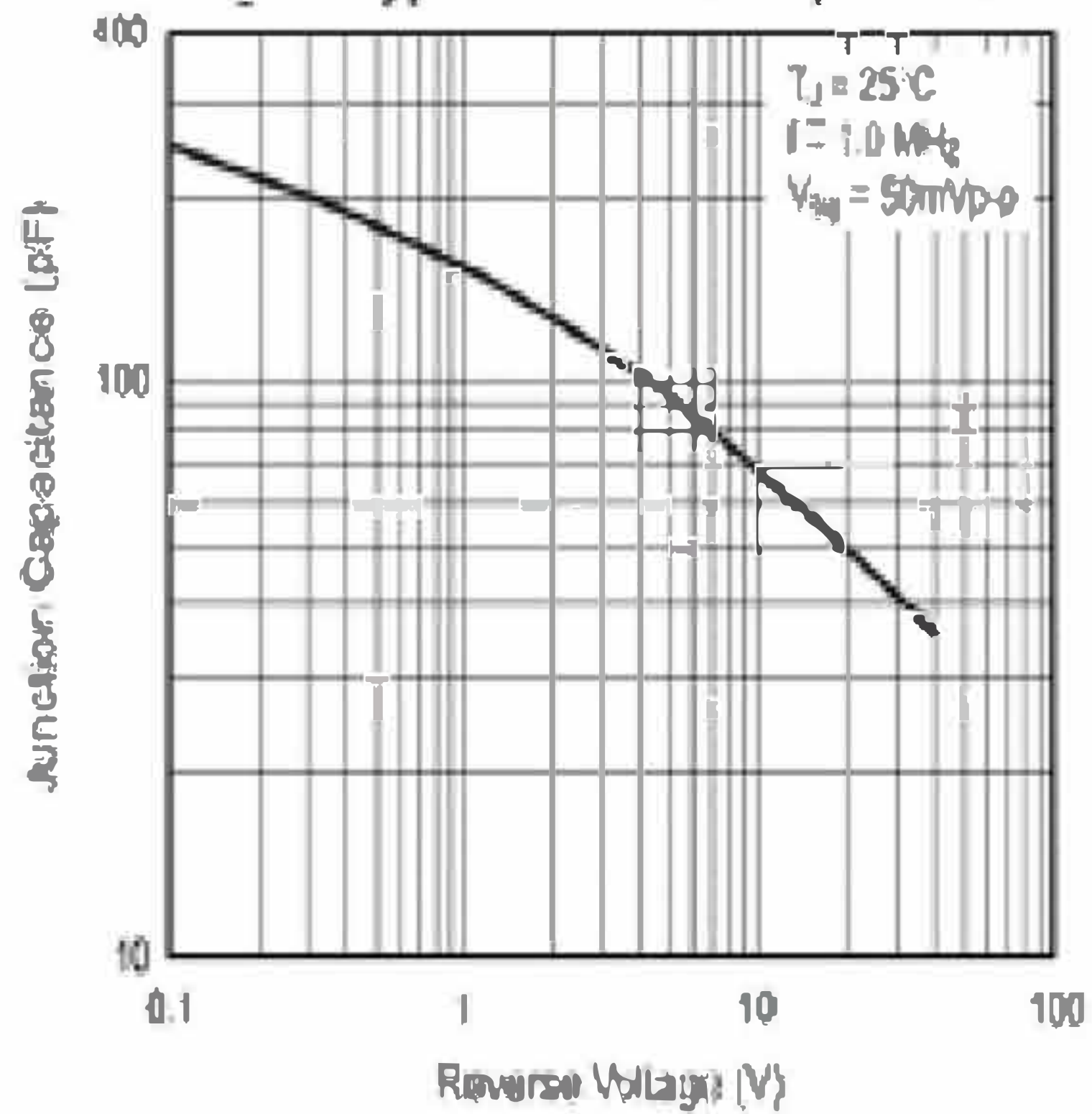
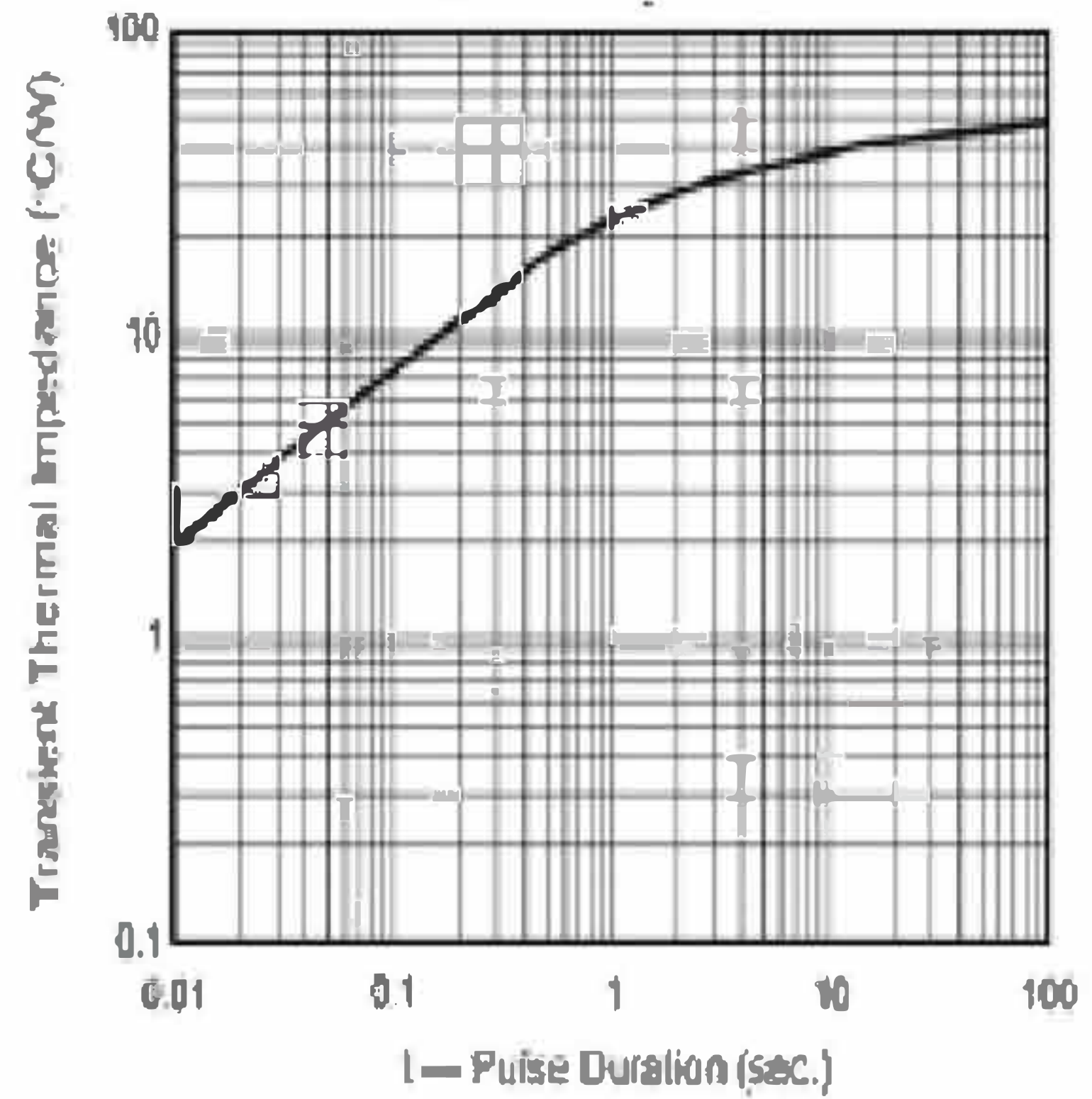
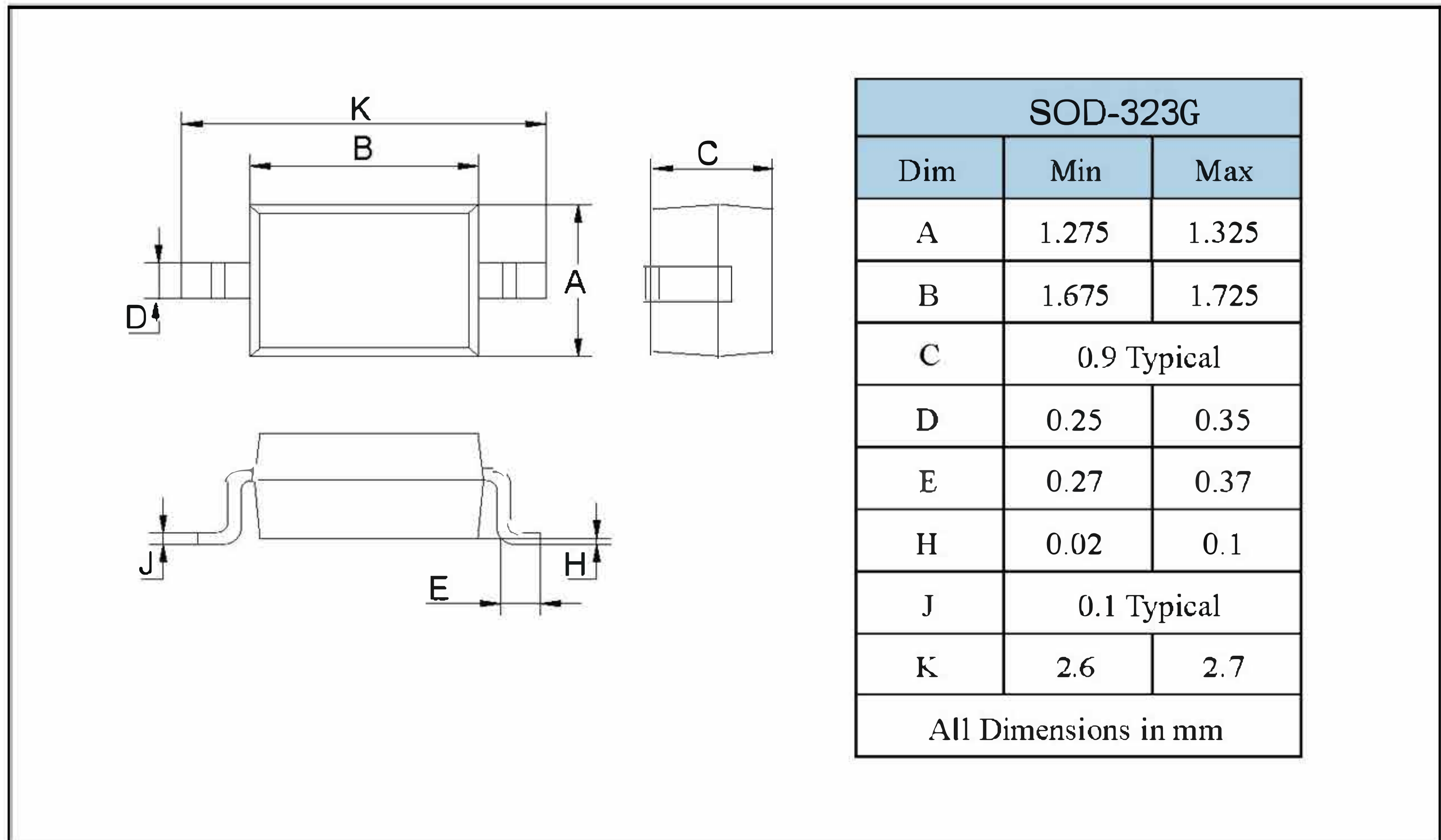


Fig. 6 - Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package



SOLDERING FOOTPRINT

