

FEATURES

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

MECHANICAL DATA

- **Case:** Molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Polarity symbols marked on case
- **Marking:** x



SOD-323

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^{\circ}\text{C}$

PARAMETER	SYMBOLS	FIGURE	UNITS
Peak repetitive peak reverse voltage	V_{RRM}	20	V
Working peak reverse voltage	V_{RWM}		
DC Blocking voltage	V_R		
RMS Reverse voltage	$V_{R(RMS)}$	14	V
Average rectified output current	I_o	1	A
Peak forward surge current @=8.3ms	I_{FSM}	25	A
Repetitive peak forward current	I_{FRM}	625	mA
Power dissipation	P_d	250	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	K/W
Storage temperature	T_{STG}	-65 to +150	$^{\circ}\text{C}$
Non-Repetitive peak reverse voltage	V_{RM}	20	V

Electrical ratings @ $T_A=25^{\circ}\text{C}$

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions
Reverse breakdown voltage	$V_{(BR)}$	20		V	$I_R=1\text{mA}$
Reverse voltage leakage current	I_R		1	mA	$V_R=20\text{V}$
Forward voltage	V_F		0.45	V	$I_F=1\text{A}$
Diode capacitance	C_D		120	pF	$V_R=4\text{V}, f=1.0\text{MHz}$

FIG. 1- FORWARD CURRENT DERATING CURVE

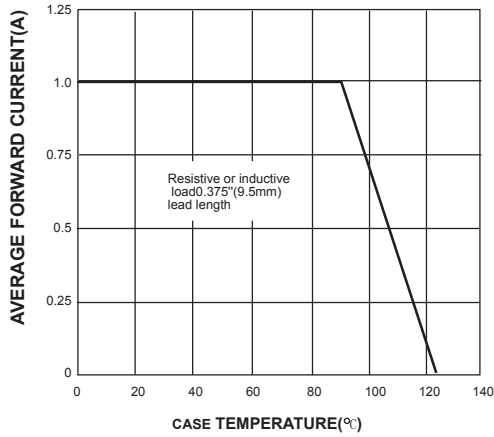


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

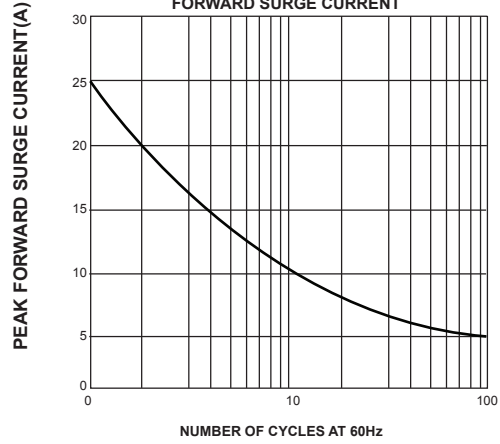


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

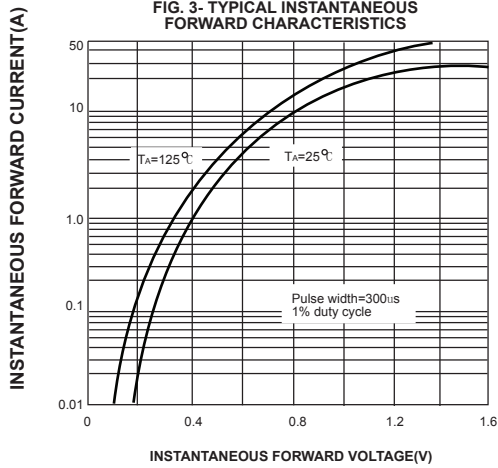


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

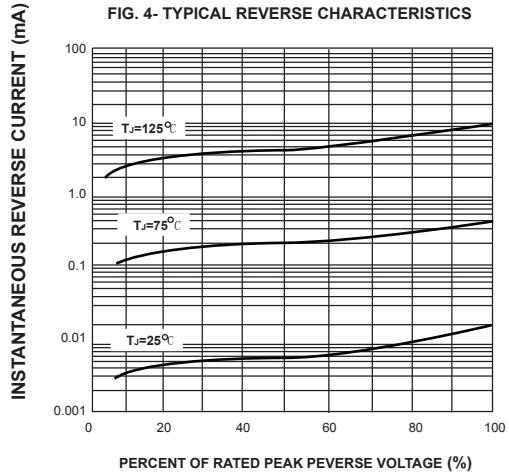


FIG. 5- TYPICAL JUNCTION CAPACITANCE

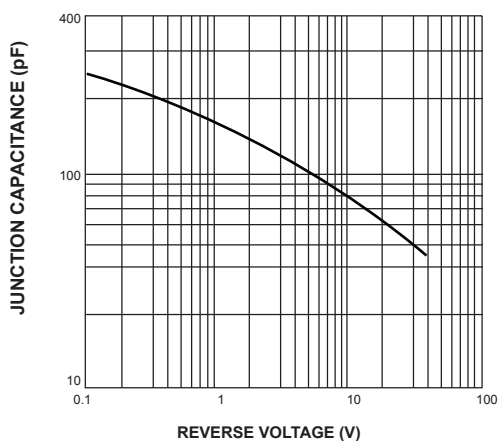


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

