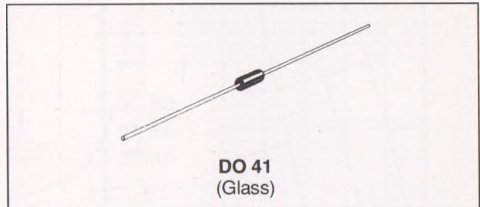


SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

General purpose metal to silicon diode featuring very low turn-on voltage and fast switching.

This device has integrated protection against excessive voltage such as electrostatic discharges.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	80	V
I_F	Forward Continuous Current*	$T_a = 70^\circ\text{C}$ 500	mA
I_{FRM}	Repetitive Peak Forward Current*	$t_p = 1\text{s}$ $\delta \leq 0.5$ 3	A
I_{FSM}	Surge non Repetitive Forward Current*	$t_p \leq 10\text{ms}$ 10	A
T_{stg} T_j	Storage and Junction Temperature Range	- 65 to 150 - 65 to 125	$^\circ\text{C}$ $^\circ\text{C}$
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	230	$^\circ\text{C}$

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	110	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
I_R^{**}	$T_j = 25^\circ\text{C}$	$V_R = 80\text{V}$			200	μA
V_F^{**}	$T_j = 25^\circ\text{C}$	$I_F = 10\text{mA}$			0.32	V
	$T_j = 25^\circ\text{C}$	$I_F = 100\text{mA}$			0.42	
	$T_j = 25^\circ\text{C}$	$I_F = 1\text{A}$			1	

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
C	$T_j = 25^\circ\text{C}$	$f = 1\text{MHz}$ $V_R = 0\text{V}$		120		pF
		$V_R = 5\text{V}$		35		

* On infinite heatsink with 4mm lead length

** Pulse test : $t_p \leq 300\mu\text{s}$ $\delta < 2\%$.

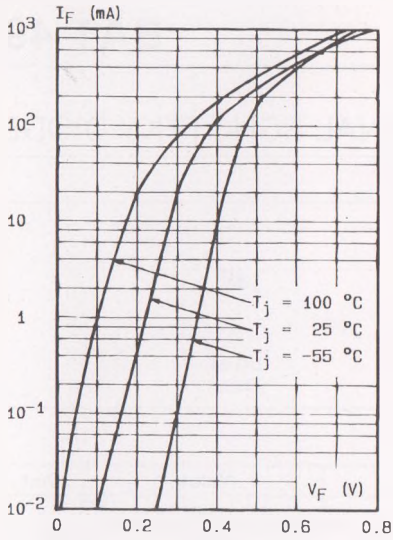


Fig.1 - Forward current versus forward voltage at low level (typical values).

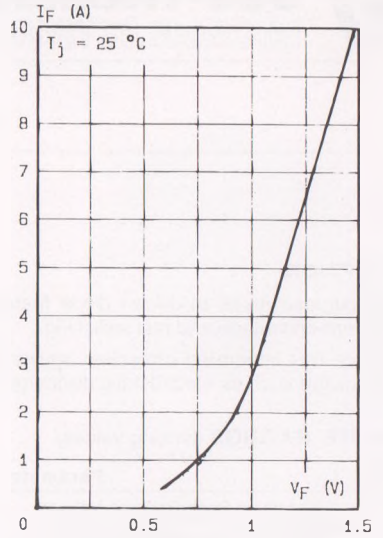


Fig.2 - Forward current versus forward voltage at high level (typical values).

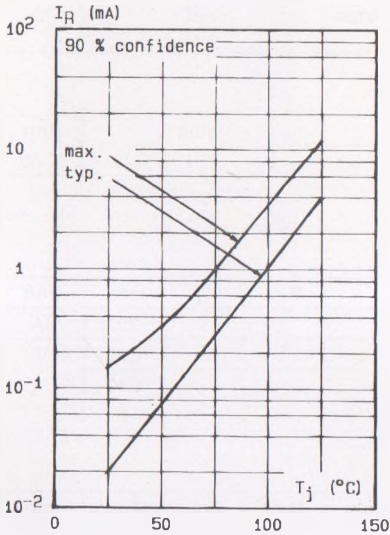


Fig.3 - Reverse current versus junction temperature.

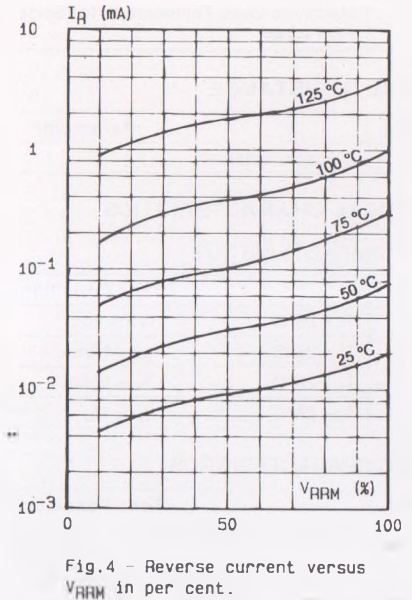


Fig.4 - Reverse current versus V_{ARM} in per cent.

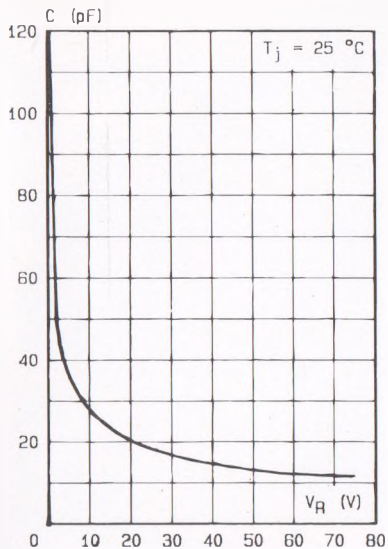


Fig.5 - Capacitance C versus reverse applied voltage V_R (typical values).

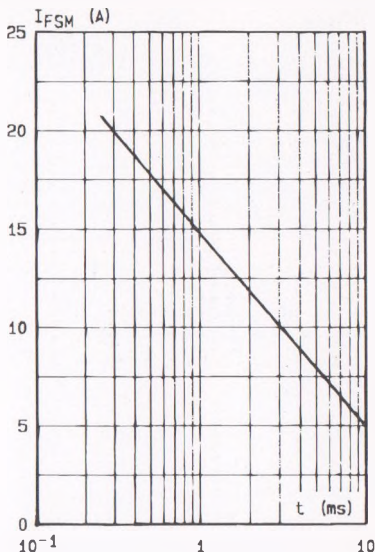


Fig.6 - Surge non repetitive forward current for a rectangular pulse with $t \leq 10$ ms.

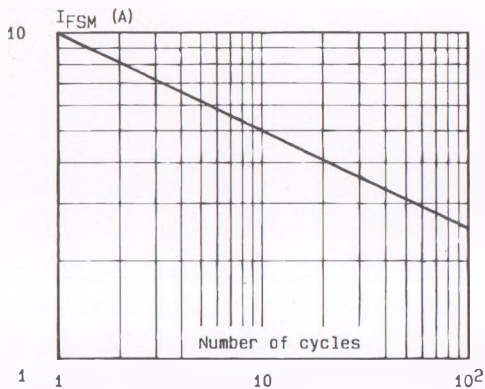


Fig.7 - Surge non repetitive forward current versus number of cycles.

