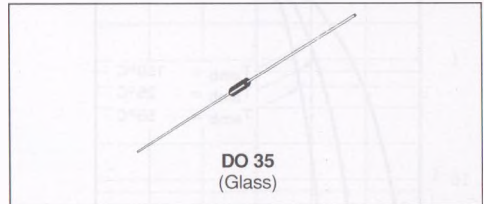# SGS-THOMSON
MICROELECTRONICS

SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

Metal to silicon junction diode featuring high break-down voltage, low turn-on voltage and ultrafast switching.

Primarily intended for high level UHF/VHF detection and pulse application with broad dynamic range.

DO 35
(Glass)

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		20	V
I_F	Forward Continuous Current*	$T_a = 25°C$	35	mA
P_{tot}	Power Dissipation*	$T_a = 25°C$	430	mW
T_{stg} T_j	Storage and Junction Temperature Range		– 65 to 200	°C
T_L	Maximum Lead Temperature for Soldering during 10s at 4 mm from Case		230	°C

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
$R_{th (j-a)}$	Junction-ambient*	400	°C/W

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)}$	$T_{amb} = 25°C$	$I_R = 10\mu A$	20			V
V_F **	$T_{amb} = 25°C$	$I_F = 1mA$			0.41	V
	$T_{amb} = 25°C$	$I_F = 35mA$			1	
I_R **	$T_{amb} = 25°C$	$V_R = 15V$			0.1	μA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	$T_{amb} = 25°C$	$V_R = 0V$	f = 1MHz			1.2	pF
τ	$T_{amb} = 25°C$	$I_F = 5mA$	Krakauer Method			100	ps

* On infinite heatsink with 4mm lead length
** Pulse test : $t_p \leq 300\mu s$ $\delta < 2\%$.
Matched batches available on request. Test conditions (forward voltage and/or capacitance) according to customer specification.
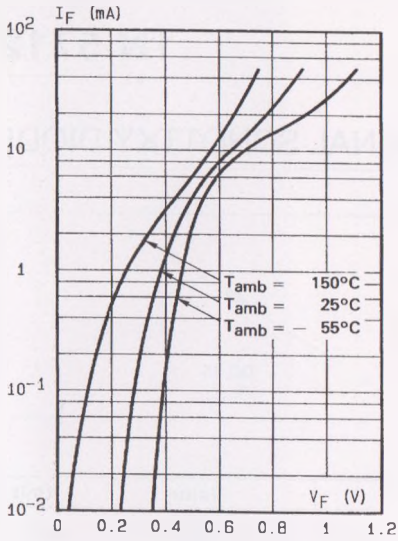
Fig.1 – Forward current versus
forward voltage at different
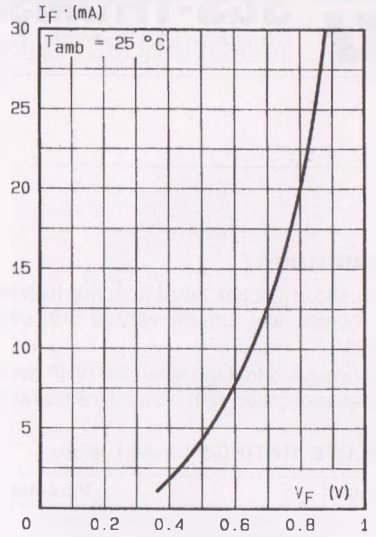temperatures (typical values).

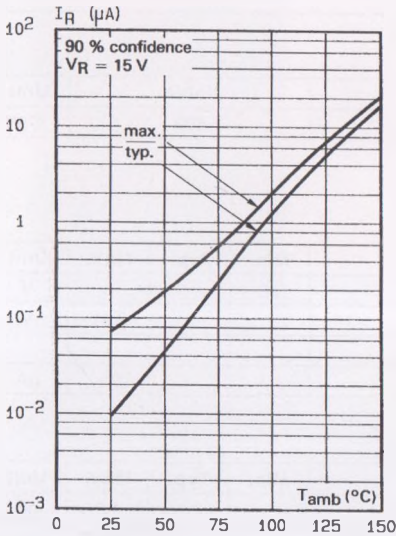Fig.2 – Forward current versus
forward voltage (typical values).

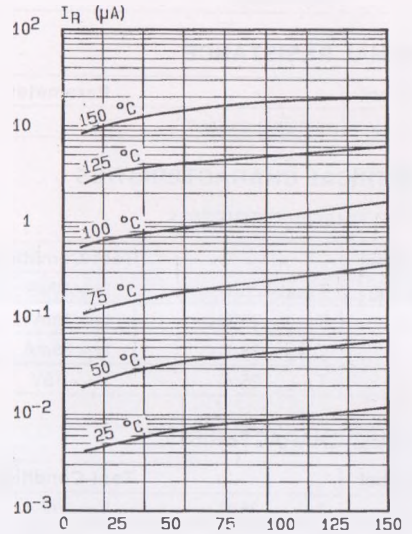Fig.3 – Reverse current versus
ambient temperature.

Fig.4 – Reverse current versus
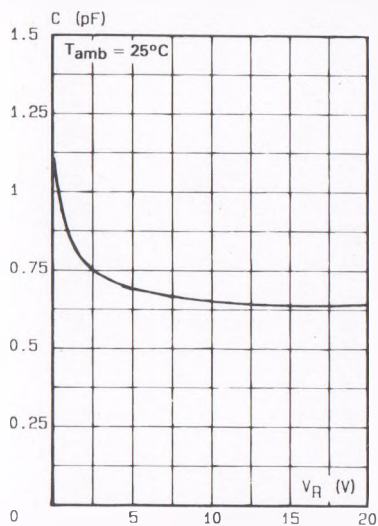continuous reverse voltage
(typical values).

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