

HIGH SPEED SWITCHING  
SILICON EPITAXIAL DIODE

FEATURES

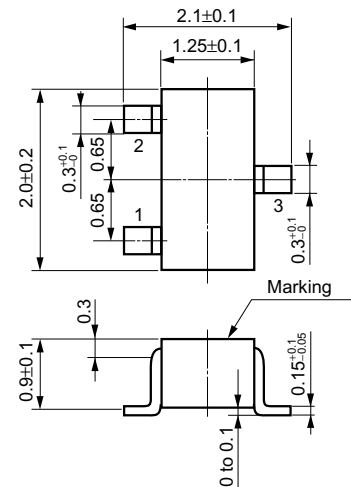
- Low capacitance:  $C_t = 4.0$  pF MAX.
- High speed switching:  $t_{rr} = 3.0$  ns MAX.
- Wide applications including switching, limiter, clipper.

ABSOLUTE MAXIMUM RATINGS

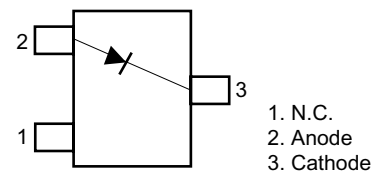
Maximum Voltages and Currents ( $T_A = 25^\circ\text{C}$ )

Peak Reverse Voltage	$V_{RM}$	100	V
DC Reverse Voltage	$V_R$	100	V
Peak Forward Current	$I_{FM}$	300	mA
Average Rectified Current	$I_o$	100	mA
DC Forward Current	$I_F$	100	mA
Maximum Temperatures			
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to + 150	$^\circ\text{C}$
Thermal Resistance			
Junction to Ambient	$R_{th(j-a)}$	0.85	$^\circ\text{C}/\text{mW}$

PACKAGE DIMENSIONS (Unit: mm)



CONNECTION DIAGRAM (Top View)



Marking : A14

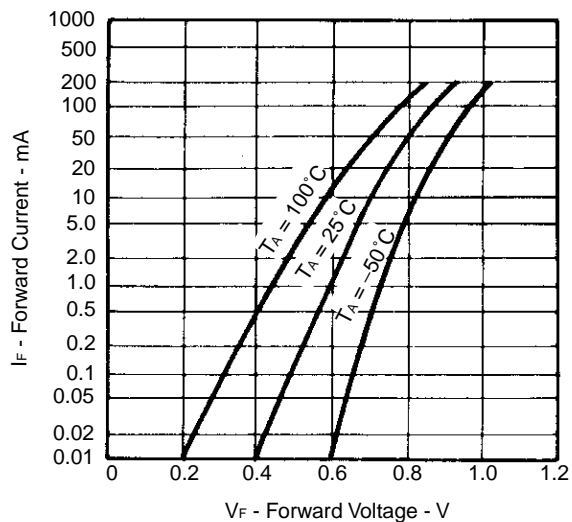
ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F1}$	$I_F = 10$ mA		720	850	mV
	$V_{F2}$	$I_F = 50$ mA		850	1000	mV
	$V_{F3}$	$I_F = 100$ mA		950	1200	mV
Reverse Current	$I_R$	$V_R = 100$ V			1.0	$\mu\text{A}$
Capacitance	$C_t$	$V_R = 0$ V, $f = 1.0$ MHz		2.0	4.0	pF
Reverse Recovery Time	$t_{rr}$	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 100 \Omega$ , See Test Circuit.			3.0	ns

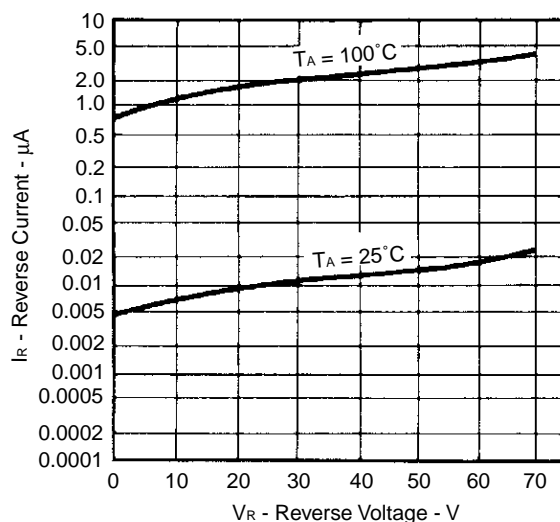
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TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

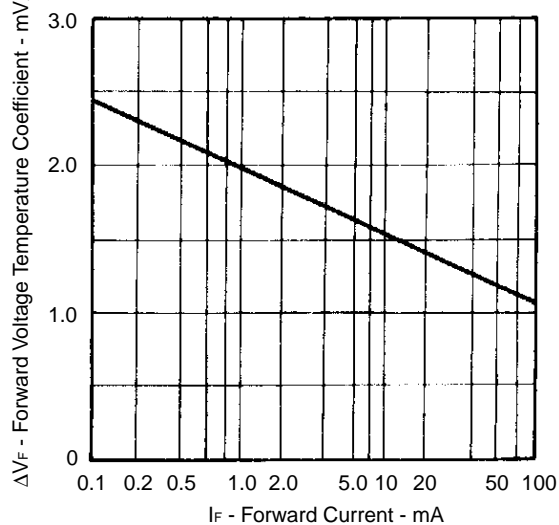
FORWARD CURRENT vs. FORWARD VOLTAGE



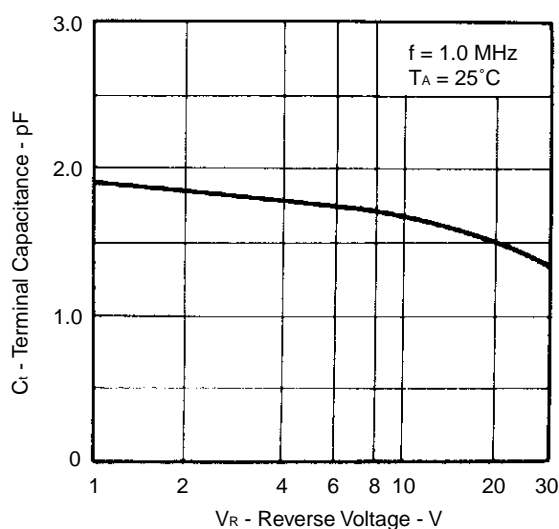
REVERSE CURRENT vs. REVERSE VOLTAGE



FORWARD VOLTAGE TEMPERATURE COEFFICIENT vs. FORWARD CURRENT

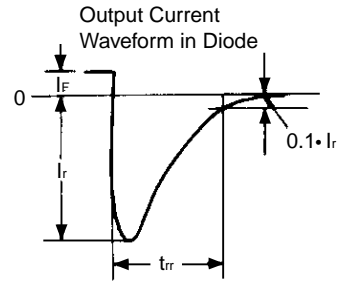
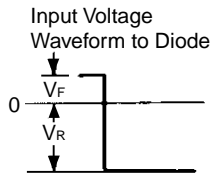
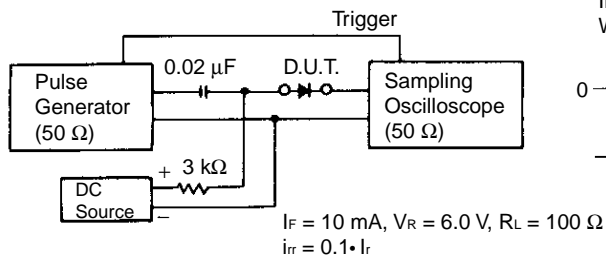


TERMINAL CAPACITANCE vs. REVERSE VOLTAGE



**SWITCHING CHARACTERISTICS TEST CIRCUIT**

Reverse recovery time :  $t_{rr}$



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