

### HIGH SPEED SWITCHING SILICON EPITAXIAL DOUBLE DIODE : COMMON CATHODE

#### FEATURES

- Low capacitance:  $C_t = 1.1$  pF TYP.
- High speed switching:  $t_{rr} = 3.0$  ns MAX.
- Wide applications including switching, limiter, clipper.
- Double diode configuration assures economical use.

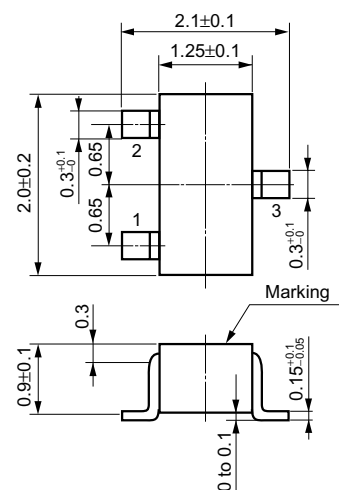
#### ABSOLUTE MAXIMUM RATINGS

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

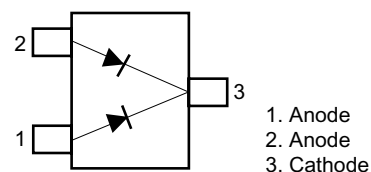
Peak Reverse Voltage	$V_{RM}$	75	V
DC Reverse Voltage	$V_R$	50	V
Surge Current (1 $\mu\text{s}$ ) <sup>Note</sup>	$I_{FSM}$	6.0	A
Surge Current (1 $\mu\text{s}$ )	$I_{FSM}$	4.0	A
Peak Forward Current <sup>Note</sup>	$I_{FM}$	450	mA
Peak Forward Current	$I_{FM}$	300	mA
Average Rectified Current <sup>Note</sup>	$I_o$	150	mA
Average Rectified Current	$I_o$	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 <sup>Note</sup>	$R_{th(j-a)}$	1.0	$^\circ\text{C}/\text{mW}$
Junction to Ambient	$R_{th(j-a)}$	0.85	$^\circ\text{C}/\text{mW}$

**Note** Both diodes loaded simultaneously.

#### PACKAGE DIMENSIONS (Unit: mm)



#### CONNECTION DIAGRAM (Top View)



1. Anode
2. Anode
3. Cathode

Marking : A6

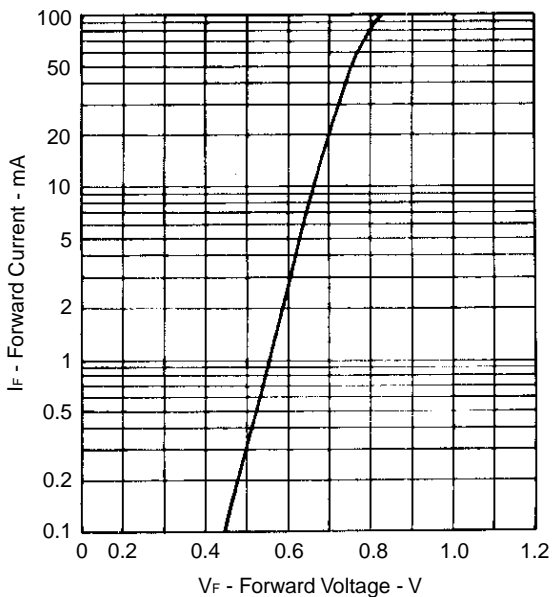
#### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F1}$	$I_F = 10$ mA		0.67	1.0	V
	$V_{F2}$	$I_F = 50$ mA		0.75	1.1	V
	$V_{F3}$	$I_F = 100$ mA		0.85	1.2	V
Reverse Current	$I_R$	$V_R = 50$ V			0.1	$\mu\text{A}$
Capacitance	$C_t$	$V_R = 0$ V, $f = 1.0$ MHz		1.1	4.0	pF
Reverse Recovery Time	$t_{rr}$	See Test Circuit.			3.0	ns

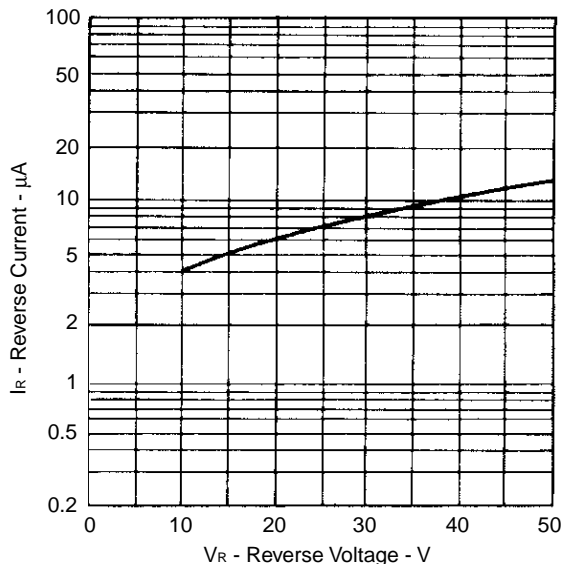
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TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

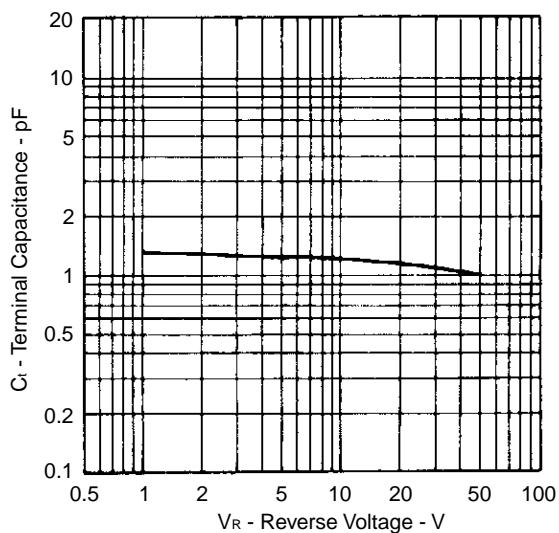
FORWARD CURRENT vs. FORWARD VOLTAGE



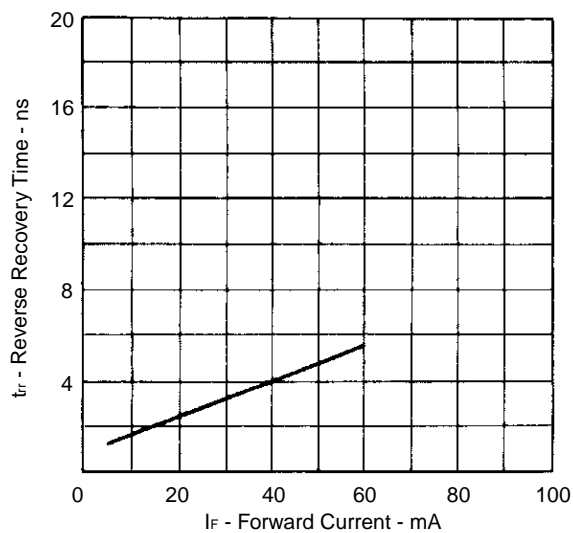
REVERSE CURRENT vs. REVERSE VOLTAGE



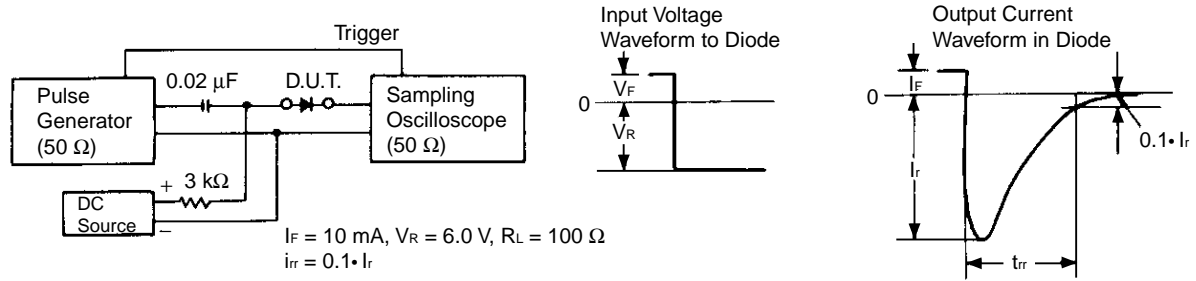
TERMINAL CAPACITANCE vs. REVERSE VOLTAGE



REVERSE RECOVERY TIME vs. FORWARD CURRENT



REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT



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