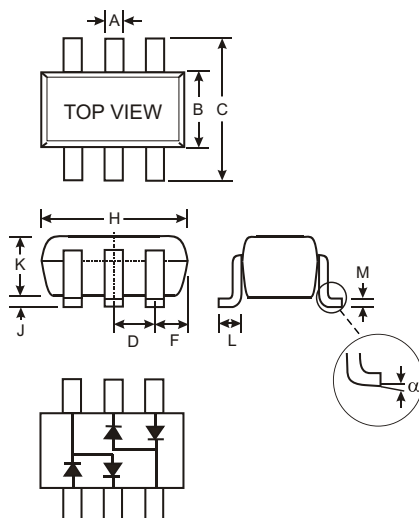


Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

Mechanical Data

- Case: SOT-26, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: KLG, See Page 2
- Weight: 0.016 grams (approx.)
- Ordering Information: See Below



SOT-26			
Dim	Min	Max	Typ
A	0.35	0.50	0.38
B	1.50	1.70	1.60
C	2.70	3.00	2.80
D	—	—	0.95
F	—	—	0.55
H	2.90	3.10	3.00
J	0.013	0.10	0.05
K	1.00	1.30	1.10
L	0.35	0.55	0.40
M	0.10	0.20	0.15
α	0°	8°	—
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	45	V
RMS Reverse Voltage	V _{R(RMS)}	40	V
Forward Continuous Current (Note 1)	I _{FM}	100	mA
Forward Surge Current @ t < 8.3ms	I _{FSM}	1.0	A
Power Dissipation (Note 1)	P _d	225	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	444	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-40 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

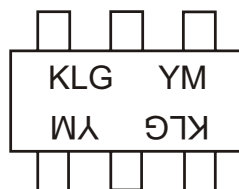
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	45	—	—	—	I _R = 100μA
Forward Voltage (Note 2)	V _F	—	370	450	mV	I _F = 10mA
Reverse Leakage Current (Note 2)	I _R	—	0.07	1.0	μA	V _R = 10V
Total Capacitance	C _T	—	6.0	—	pF	V _R = 10V, f = 1.0MHz

Ordering Information (Note 3)

Device	Packaging	Shipping
SDM10M45SD-7	SOT-26	3000/Tape & Reel

- Note:
1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 2. Short duration pulse test to minimize self-heating effect.
 3. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information

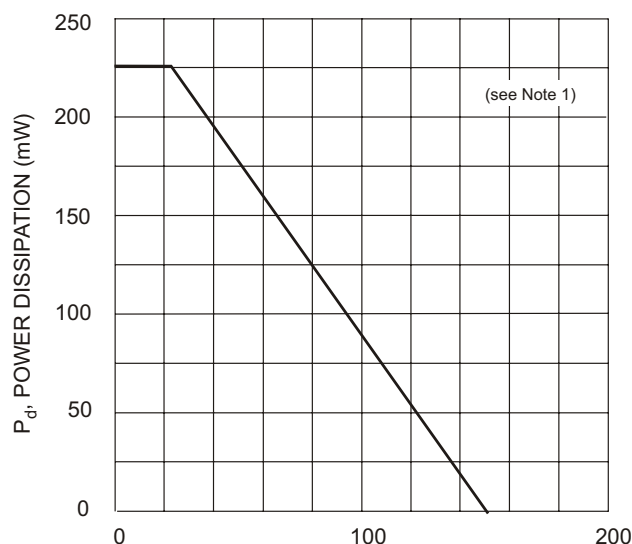


KLG = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: P = 2003
 M = Month ex: 9 = September

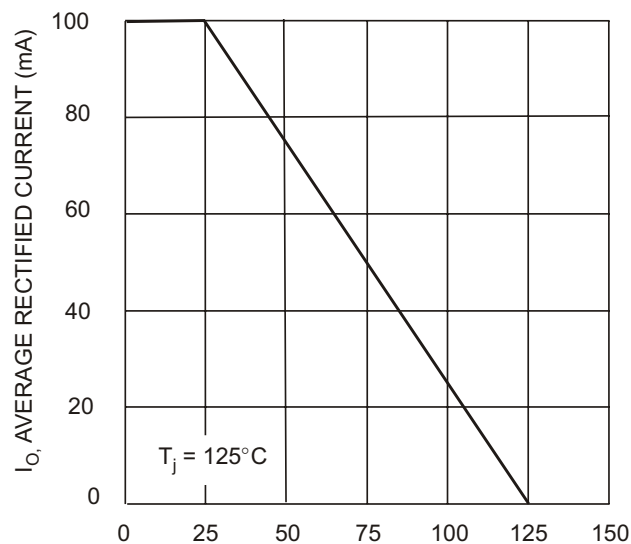
Date Code Key

Year	2003	2004	2005	2006	2007	2008	2009
Code	P	R	S	T	U	V	W

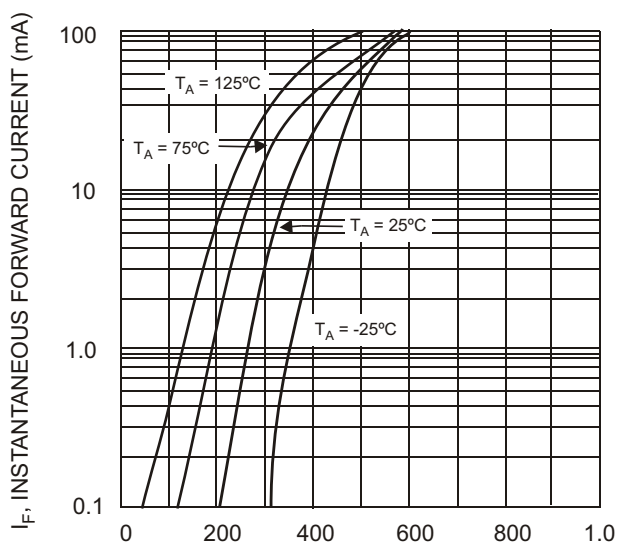
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D



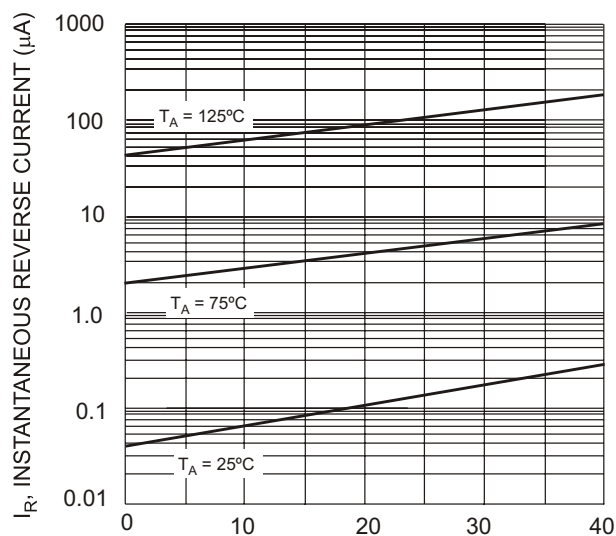
T_A , AMBIENT TEMPERATURE ($^{\circ}\text{C}$)
 Fig. 1, Power Derating Curve



T_A , AMBIENT TEMPERATURE ($^{\circ}\text{C}$)
 Fig. 2 Forward Current Derating Curve (Per Element)



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
 Fig. 3 Typical Forward Characteristics



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
 Fig. 4 Typical Reverse Characteristics

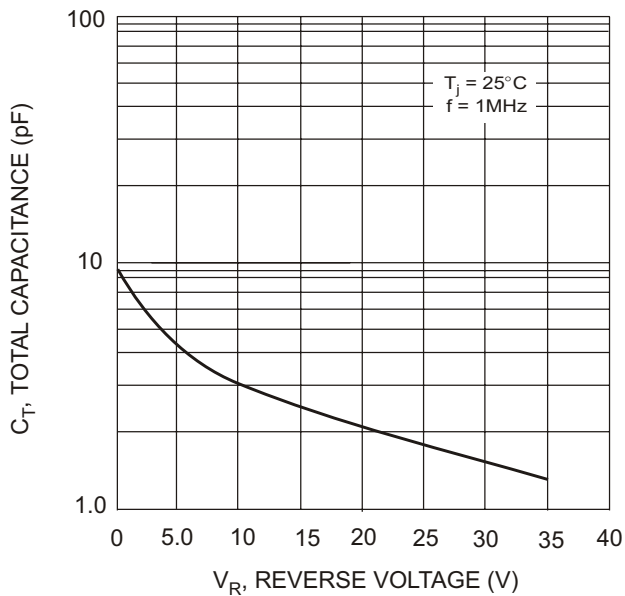


Fig. 5 Total Capacitance vs. Reverse Voltage