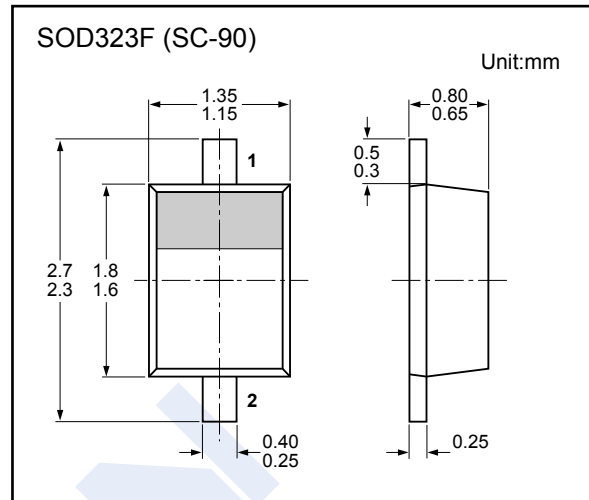


Schottky Diodes

PD3S130L (KD3S130L)

■ Features

- Ultra-Small Surface Mount Package
- Guard Ring Die Construction for Transient Protection
- High Surge Capability
- Lead Free Finish, RoHS Compliant



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	21	
Average Forward Current	I_{FAV}	1	A
Non-Repetitive Peak Forward Surge Current @ 8.3ms	I_{FSM}	22	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	177 (typ)	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Soldering Point	$R_{\theta JS}$	6	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 1.5 \text{ mA}$	30			V
Forward voltage	V_{F1}	$I_F = 100 \text{ mA}$			0.33	
	V_{F2}	$I_F = 700 \text{ mA}$			0.37	
	V_{F3}	$I_F = 1 \text{ A}$			0.42	
Reverse voltage leakage current	I_{R1}	$V_R = 5 \text{ V}$			250	μA
	I_{R2}	$V_R = 30 \text{ V}$			1.5	mA
Junction capacitance	C_j	$V_R = 10 \text{ V}, f = 1 \text{ MHz}$		40		pF

■ Marking

Marking	31
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Schottky Diodes

PD3S130L (KD3S130L)

■ Typical Characteristics

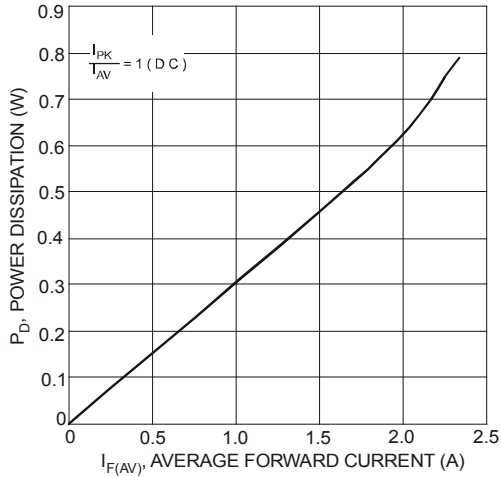


Fig. 1 Forward Power Dissipation

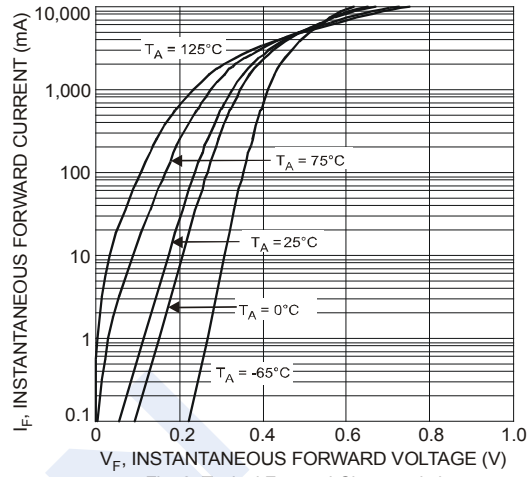


Fig. 2 Typical Forward Characteristics

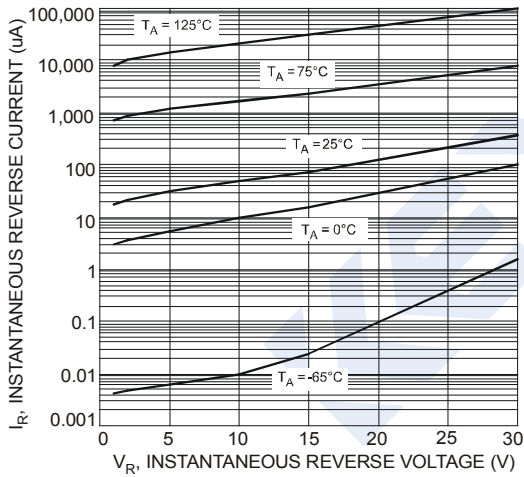


Fig. 3 Typical Reverse Characteristics

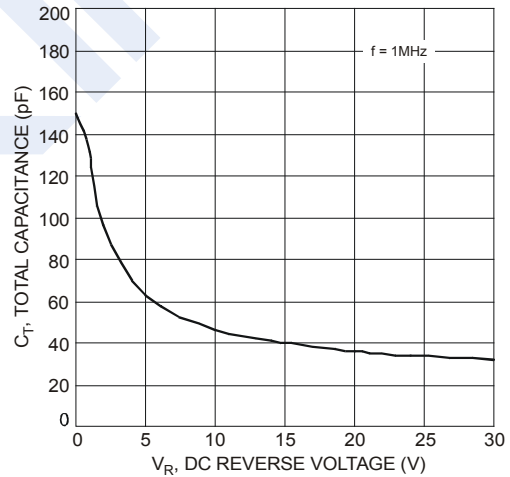


Fig. 4 Total Capacitance vs. Reverse Voltage

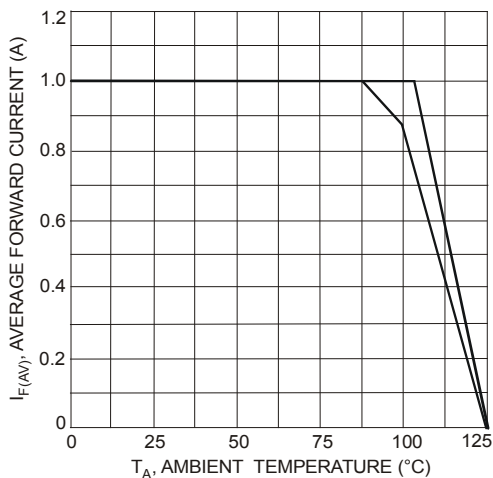


Fig. 5 Forward Current Derating Curve

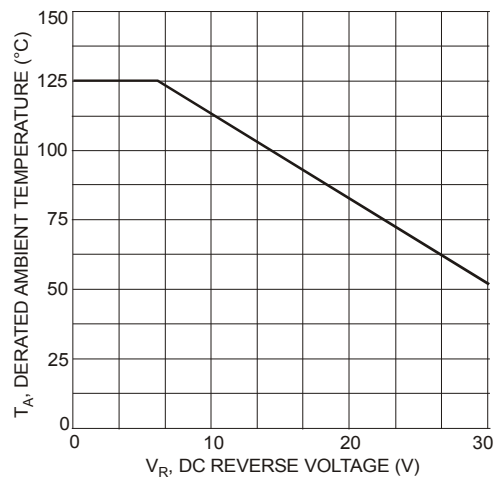


Fig. 6 Operating Temperature Derating