

LS4150PF

Silicon Epitaxial Planar Switching Diode

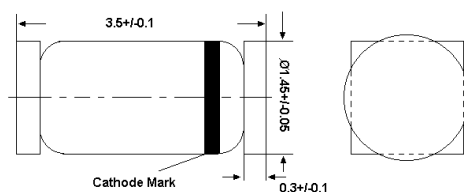
Features

- Lead Free

Applications

- High speed switch and general purpose use in com-puter and industrial applications

LS-34



QuadroMELF
Dimensions in mm

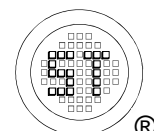
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	50	V
Reverse Voltage	V_R	50	V
Average Rectified Forward Current	$I_{F(AV)}$	300	mA
Peak Forward Current	I_{FM}	600	mA
Non-Repetitive Peak Forward Surge Current (at $t = 1 \mu\text{s}$)	I_{FSM}	4	A
Power Dissipation	P_{tot}	500	mW
Junction temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to +175	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	300	$^\circ\text{C/W}$

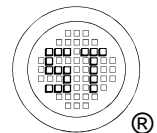
¹⁾ Valid provided that electrodes are kept at ambient temperature.



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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	V_F	- - - - -	0.7 0.74 0.9 1 1.2	V
Reverse Current at $V_R = 50\text{ V}$ at $V_R = 50\text{ V}, T_j = 150^\circ\text{C}$	I_R	- -	100 100	nA μA
Capacitance at $V_R = 0, f = 1\text{ MHz}$	C_{tot}	-	4	pF
Reverse Recovery Time at $I_F = 10\text{ mA}, I_{rr} = 0.1 \times I_R, V_R = 6\text{ V}, R_L = 100\ \Omega$	t_{rr}	-	4	ns



Electrical Characteristics Curves

Fig 1. Forward Characteristics

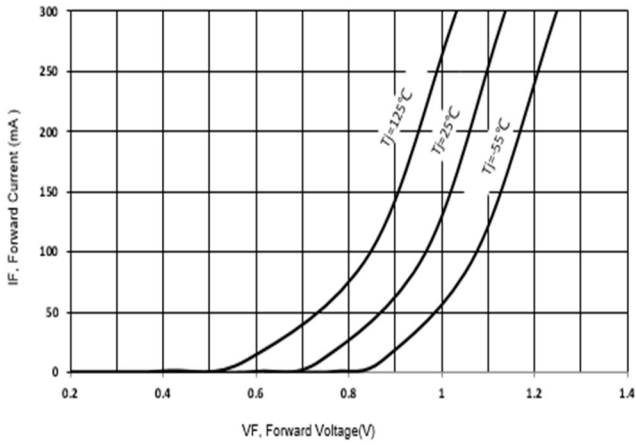


Fig 2. Reverse Characteristics

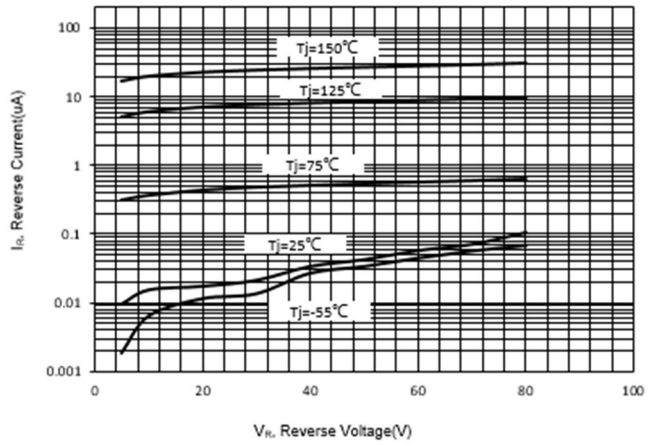


Fig 3. Junction Capacitance

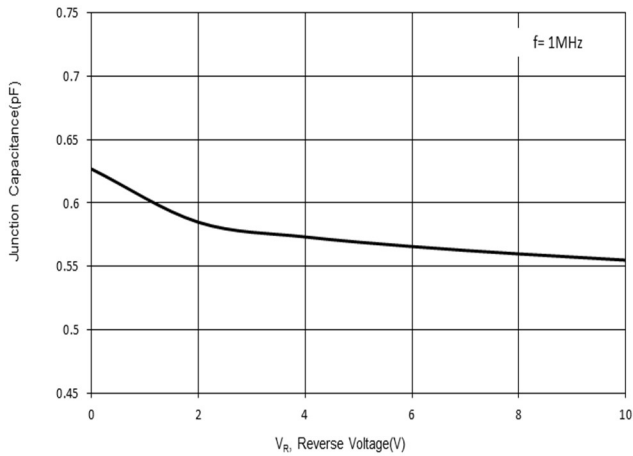
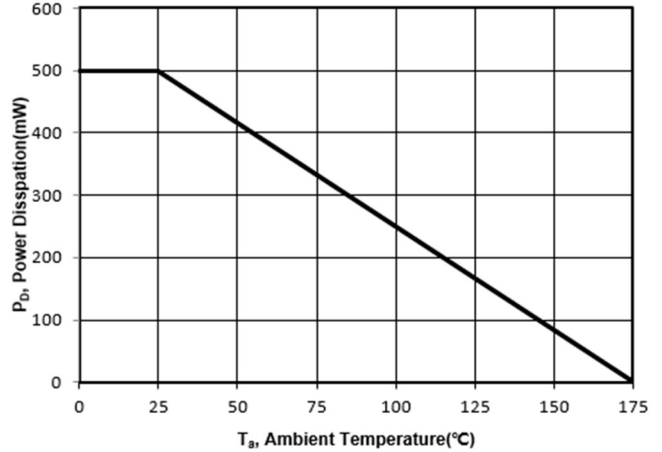


Fig 4. Power Derating Curves



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