

Schottky Barrier Diode

Features

1. High reliability
2. Very low forward voltage
3. Small surface mounting type



Applications

Applications where a very low forward voltage is required

Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Continuous reverse voltage		V_R	30	V
Forward continuous current	$T_{amb}=25^{\circ}\text{C}$	I_F	200	mA
Peak forward current	$T_{amb}=25^{\circ}\text{C}$	I_{FM}	300	mA
Surge forward current	$t_p \leq 1 \text{ s}, T_{amb}=25^{\circ}\text{C}$	I_{FSM}	600	mA
Power dissipation	$T_{amb}=65^{\circ}\text{C}$	P_{tot}	200	mW
Maximum junction temperature		T_j	125	$^{\circ}\text{C}$
Ambient operating temperature range		T_A	-65~+125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65~+150	$^{\circ}\text{C}$

Maximum Thermal Resistance

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mm×50mm×1.6mm	R_{thJA}	250	K/W

Electrical Characteristics

 $T_j=25^{\circ}\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=10\ \mu\text{A}$ (pulsed)	30	-	-	V
Leakage current	I_R	$V_R=25\text{V}$	-	-	2	μA
Forward voltage Pulse test $t_p < 300\ \mu\text{s}$, $\delta < 2\%$	V_F	$I_F=0.1\text{mA}$	-	-	0.24	V
		$I_F=1\text{mA}$	-	-	0.32	V
		$I_F=10\text{mA}$	-	-	0.4	V
		$I_F=30\text{mA}$	-	0.5	-	V
		$I_F=100\text{mA}$	-	-	0.8	V
Capacitance	C_{tot}	$V_R=1\text{V}$, $f=1\text{MHz}$	-	-	10	pF
Reverse recovery time	t_{rr}	$I_F=10\text{mA}$ to $I_R=10\text{mA}$ to $I_R=0.1\text{mA}$ I_R	-	-	5	ns

Characteristics ($T_J=25^\circ\text{C}$ unless otherwise specified)

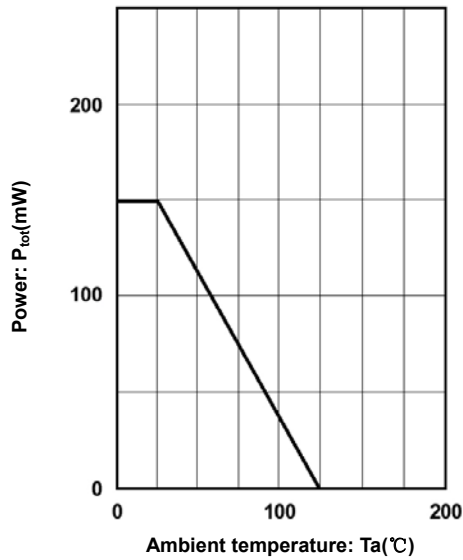


Figure 1. Admissible power dissipation vs. ambient temperature

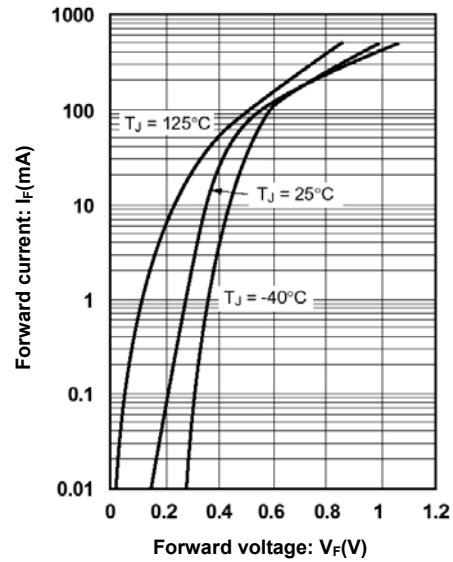


Figure 2. Typical instantaneous forward characteristics

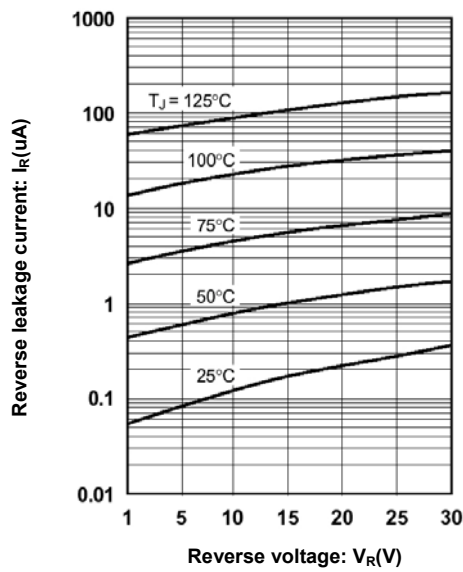


Figure 3. Typical reverse characteristics

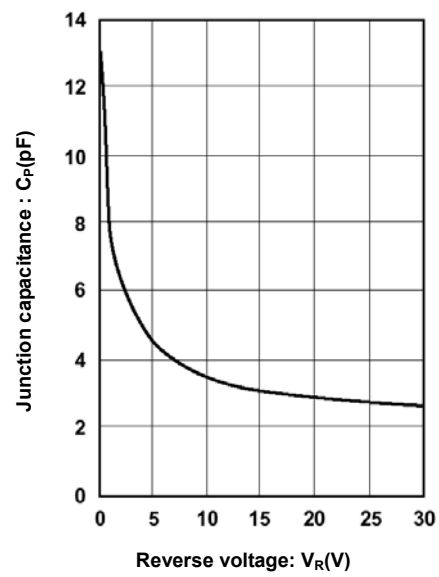
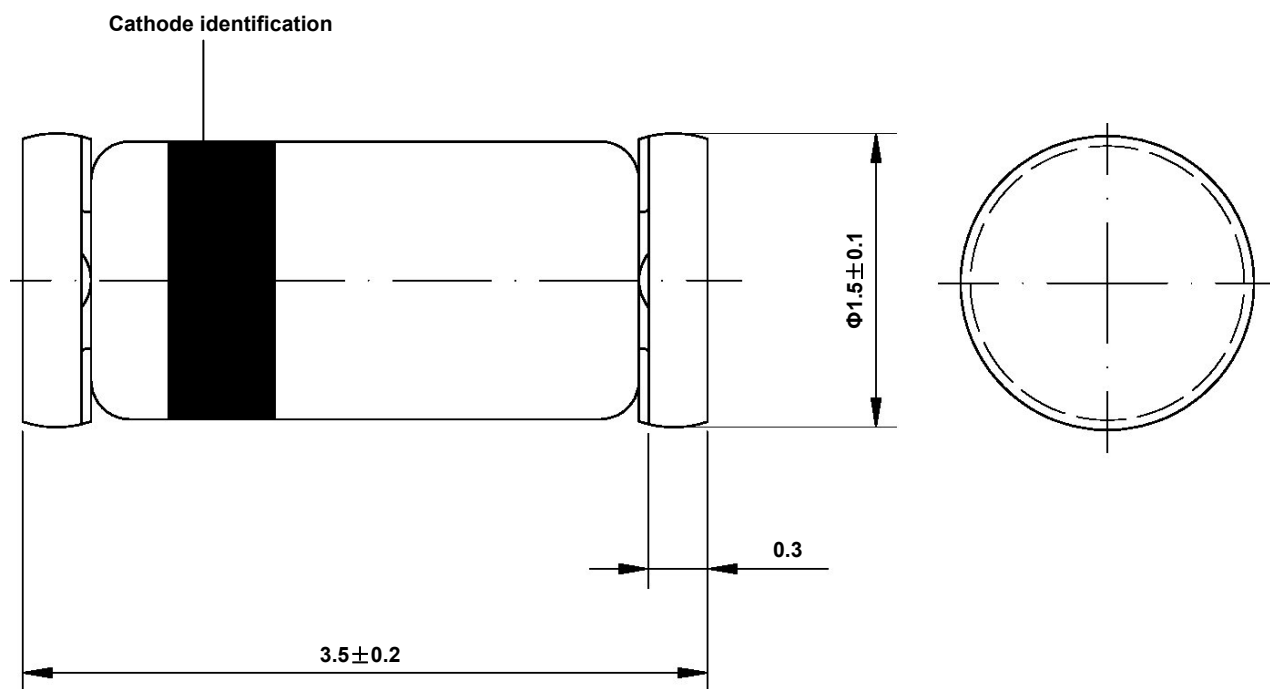


Figure 4. Typical junction capacitance

Dimensions in mm



Glass Case
Mini Melf / SOD 80
JEDEC DO 213 AA