

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
Repetitive peak reverse voltage		V_{RRM}	40	V
Forward continuous current	$T_{amb}=25^{\circ}\text{C}$	I_F	350	mA
Repetitive peak forward current	$T_{amb}=25^{\circ}\text{C}$, $t_p \leq 1\text{ s}$	I_{FRM}	1	A
Surge forward current	$t_p \leq 10\text{ms}$, $T_{amb}=25^{\circ}\text{C}$	I_{FSM}	7.5	A
Power dissipation	$T_{amb}=65^{\circ}\text{C}$	P_{tot}	330	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	$^{\circ}\text{C}$

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.



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)	40	-	-	V
Leakage Current Pulse test $t_p<300\mu\text{s}$, $\delta<2\%$	I_R	$V_R=10\text{V}$	-	-	2	μA
		$V_R=10\text{V}$, $T_j=60^{\circ}\text{C}$	-	-	15	μA
		$V_R=20\text{V}$	-	-	5	μA
		$V_R=20\text{V}$, $T_j=60^{\circ}\text{C}$	-	-	25	μA
		$V_R=40\text{V}$	-	-	25	μA
		$V_R=40\text{V}$, $T_j=60^{\circ}\text{C}$	-	-	50	μA
Forward voltage Pulse test $t_p<300\mu\text{s}$, $\delta<2\%$	V_F	$I_F=0.1\text{mA}$	-	-	0.25	V
		$I_F=1\text{mA}$	-	-	0.30	V
		$I_F=10\text{mA}$	-	-	0.40	V
		$I_F=50\text{mA}$	-	-	0.50	V
		$I_F=200\text{mA}$	-	-	0.75	V
		$I_F=500\text{mA}$	-	-	0.90	V
Capacitance	C_{tot}	$V_R=1\text{V}$, $f=1\text{MHz}$	-	12	-	pF

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

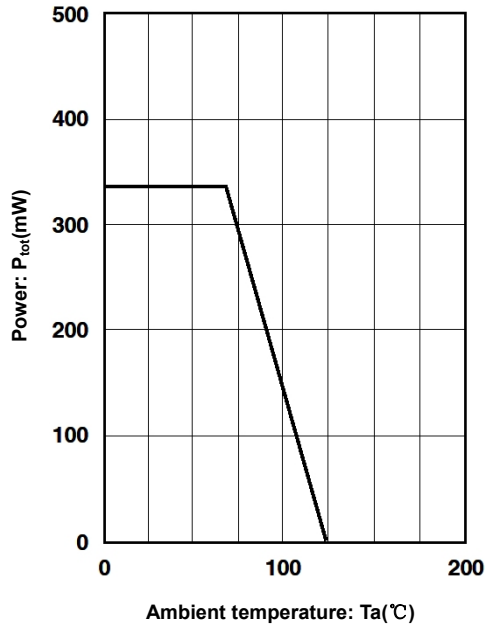


Figure 1. Admissible power dissipation vs. ambient temperature

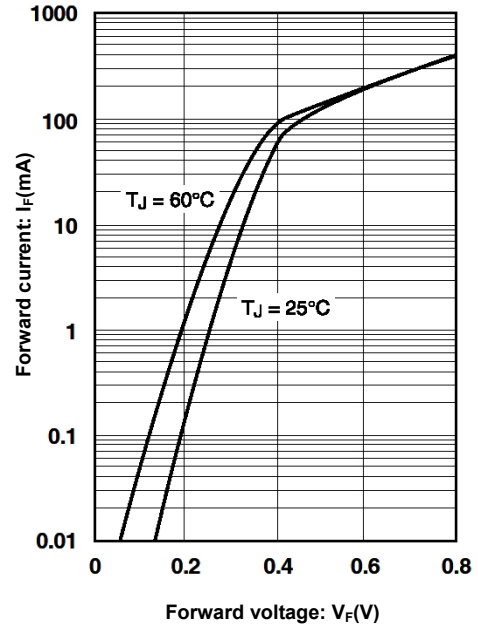


Figure 2. Forward characteristics

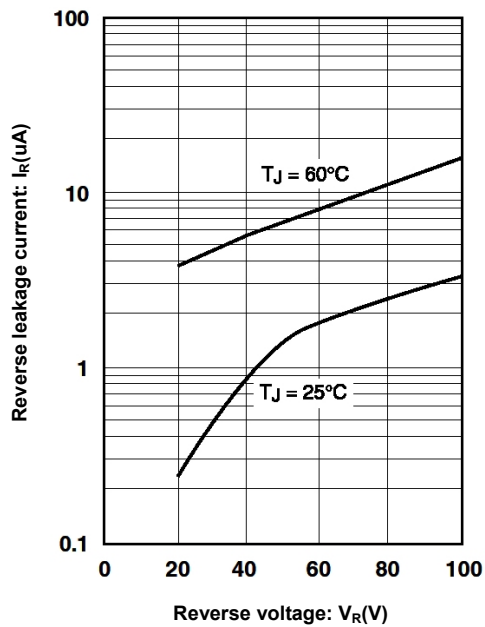
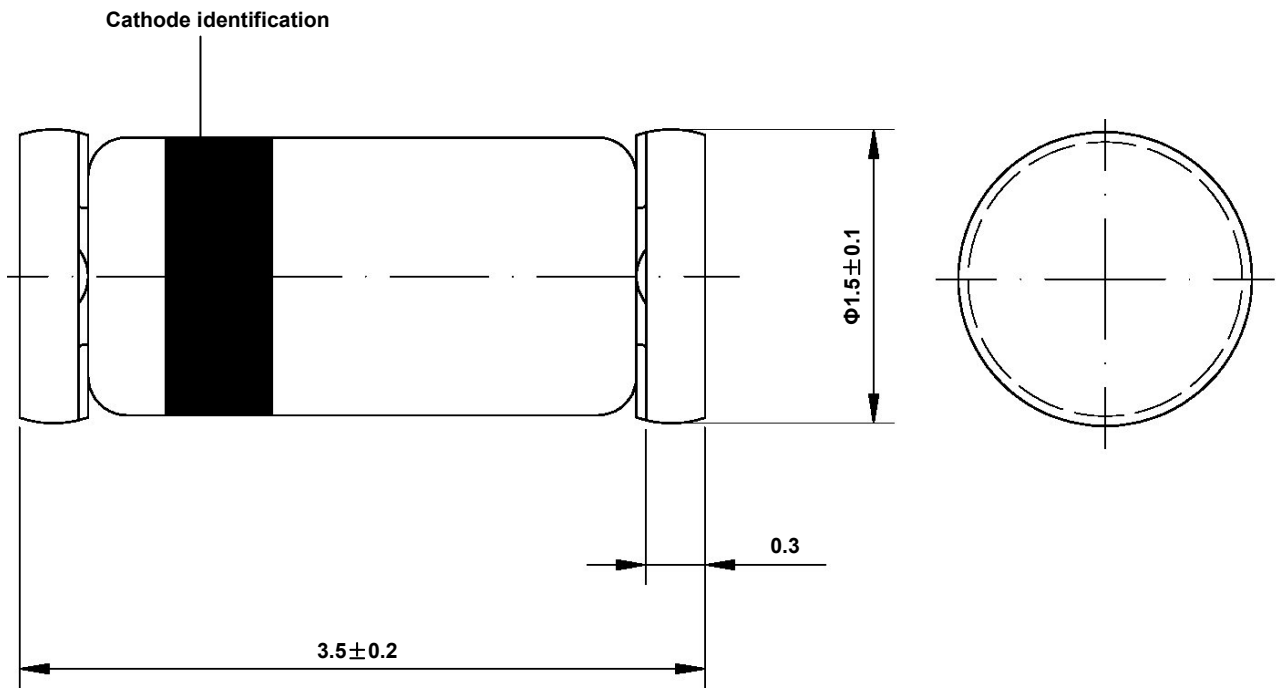


Figure 3. Typical reverse characteristics

Dimensions in mm



Glass Case
Mini Melf / SOD-80
JEDEC DO-213 AA

