

**Silicon Standard
Recovery Diode**
 $V_{RRM} = 50\text{ V} - 600\text{ V}$
 $I_F = 60\text{ A}$
Features

- High Surge Capability
- Types up to 600 V V_{RRM}

DO-5 Package
Note:

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.


Maximum ratings, at $T_J = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	1N2133A(R)	1N2135A(R)	1N2137A(R)	1N2138A(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		300	400	500	600	V
RMS reverse voltage	V_{RMS}		210	280	350	420	V
DC blocking voltage	V_{DC}		50	100	150	200	V
Continuous forward current	I_F	$T_C \leq 150\text{ }^\circ\text{C}$	60	60	60	60	A
Surge non-repetitive forward current, Half Sine Wave	I_{FSM}	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	1050	1050	1050	1050	A
Operating temperature	T_J		-65 to 200	-65 to 200	-65 to 200	-65 to 200	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to 200	-65 to 200	-65 to 200	-65 to 200	$^\circ\text{C}$

Electrical characteristics, at $T_J = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	1N2133A(R)	1N2135A(R)	1N2137A(R)	1N2138A(R)	Unit
Diode forward voltage	V_F	$I_F = 60\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_J = 25\text{ }^\circ\text{C}$	10	10	10	10	μA
		$V_R = 50\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	15	15	15	15	mA

Thermal characteristics

Thermal resistance, junction - case	$R_{\theta JC}$		0.65	0.65	0.65	0.65	$^\circ\text{C/W}$
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Figure 1-Typical Forward Characteristics

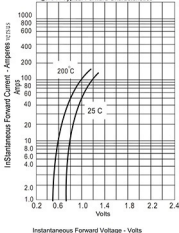


Figure 2-Forward Derating Curve

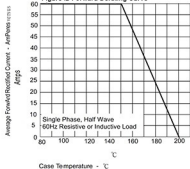


Figure 3-Peak Forward Surge Current

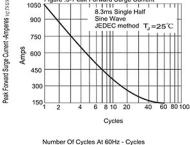


Figure 4-Typical Reverse Characteristics

