America Semiconductor

Silicon Standard Recovery Diode

1N2133A thru 1N2138AR

V_{RRM} = 50 V - 600 V

I_F =60 A

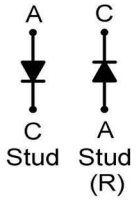
Features

- 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 °C, unless otherwise specified

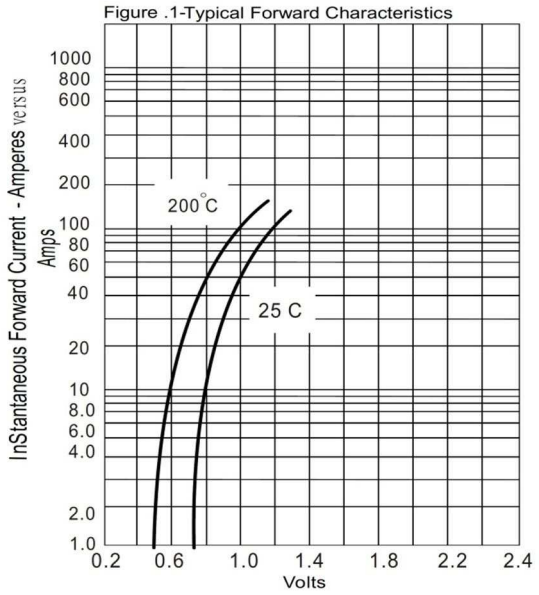
Parameter	Symbol	Conditions	1N2133A(R)	1N2135A(R)	1N2137A(R)	1N2138A(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		300	400	500	600	V
RMS reverse voltage	V_{RMS}		210	280	350	420	V
DC blocking voltage	V_{DC}		50	100	150	200	V
Continuous forward current	I_F	$T_C \leq 150$ °C	60	60	60	60	A
Surge non-repetitive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

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	1N2133A(R)	1N2135A(R)	1N2137A(R)	1N2138A(R)	Unit
Diode forward voltage	V_F	I_F = 60 A, T_j = 25 °C	1.1	1.1	1.1	1.1	V
Reverse current	I_R	V_R = 50 V, T_j = 25 °C	10	10	10	10	µA
		V_R = 50 V, T_j = 150 °C	15	15	15	15	mA
Thermal characteristics							
Thermal resistance, junction - case	R_{thJC}		0.65	0.65	0.65	0.65	°C/W

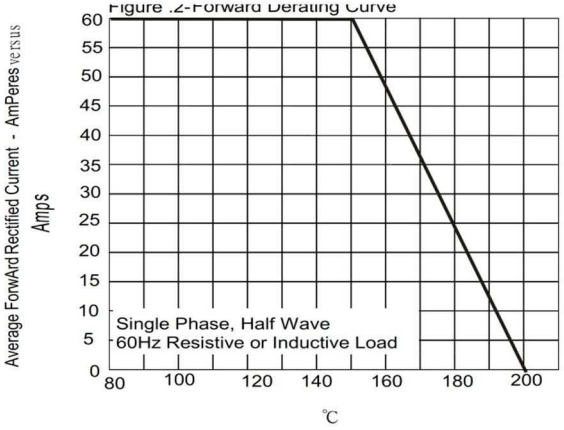
RoHS Compliant

Figure .1-Typical Forward Characteristics



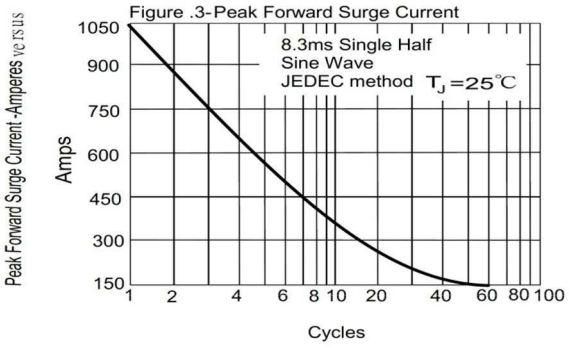
Instantaneous Forward Voltage - Volts

Figure .2-Forward Derating Curve



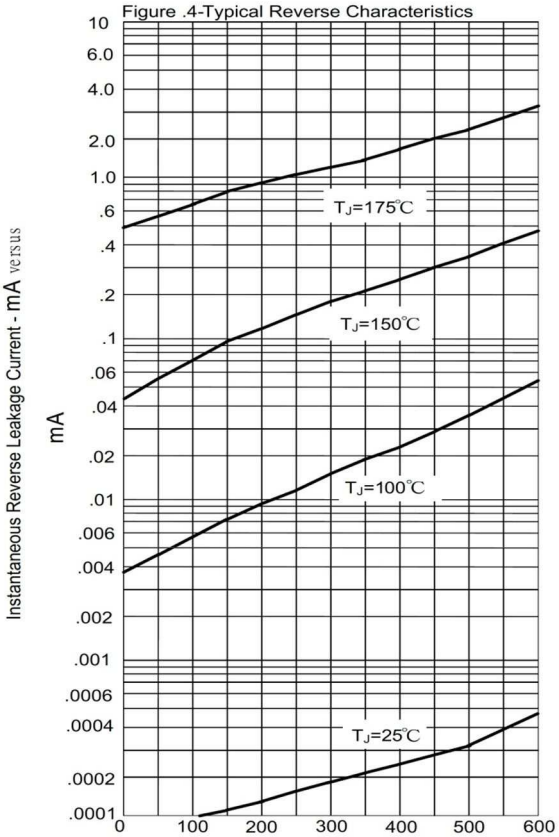
Case Temperature - °C

Figure .3-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts