

MA3U649

Silicon planar type (cathode common)

For high-frequency rectification

Features

- Small U-type package for surface mounting
- Low-loss type with fast reverse recovery time t_{rr}
- Cathode common dual type

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

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	200	V
Non-repetitive peak reverse surge voltage	V_{RSM}	200	V
Average forward current ^{*1}	$I_{F(AV)}$	5	A
Non-repetitive peak forward surge current ^{*2}	I_{FSM}	40	A
Junction temperature	T_j	-40 to +150	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

Note) 1. $T_C = 25^\circ\text{C}$

*2 : Half sine-wave; 10 ms/cycle

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Repetitive peak reverse current	I_{RRM1}	$V_{RRM} = 200\text{ V}, T_C = 25^\circ\text{C}$			20	μA
	I_{RRM2}	$V_{RRM} = 200\text{ V}, T_j = 150^\circ\text{C}$			2	mA
Forward voltage (DC)	V_F	$I_F = 2.5\text{ A}, T_C = 25^\circ\text{C}$			0.98	V
Reverse recovery time ^{*2}	t_{rr}	$I_F = 1\text{ A}, I_R = 1\text{ A}$			30	ns
Thermal resistance ^{*1}	$R_{th(j-c)}$	Direct current (between junction and case)			12.5	$^\circ\text{C/W}$

Note) 1. Rated input/output frequency: 200 MHz

*1 : $T_C = 25^\circ\text{C}$

*2 : t_{rr} measuring circuit



