

# MA3U649

Silicon planar type (cathode common)

For high-frequency rectification

## ■ Features

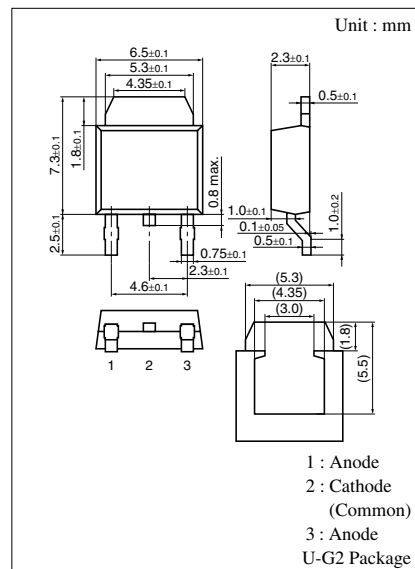
- Small U-type package for surface mounting
- Low-loss type with fast reverse recovery time  $t_{rr}$
- Cathode common dual type

## ■ 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* <sup>1</sup>	$I_{F(AV)}$	5	A
Non-repetitive peak forward surge current* <sup>2</sup>	$I_{FSM}$	40	A
Junction temperature	$T_j$	-40 to +150	°C
Storage temperature	$T_{stg}$	-40 to +150	°C

Note) 1. \*1 :  $T_c = 25^\circ\text{C}$

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



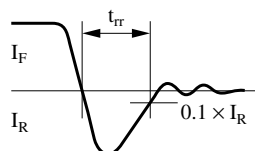
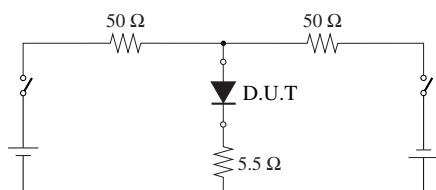
## ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

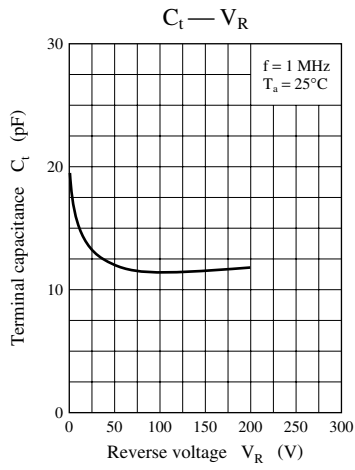
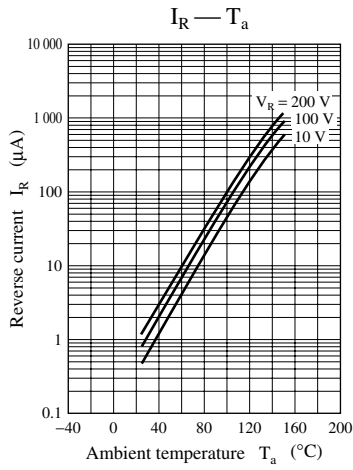
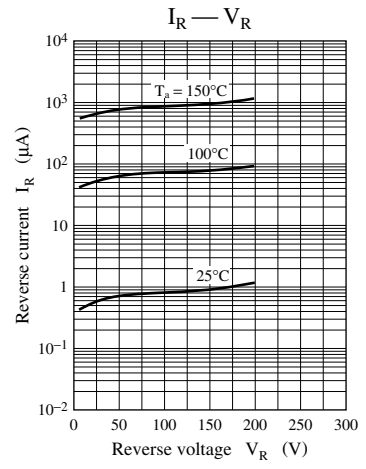
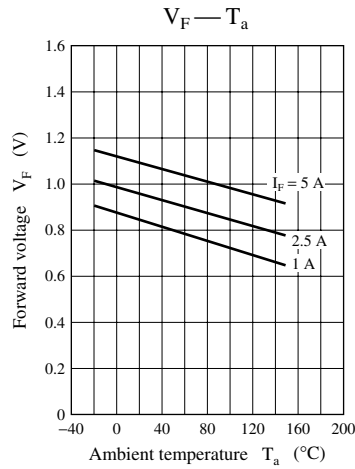
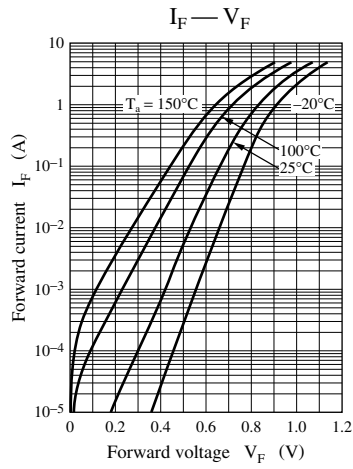
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Repetitive peak reverse current	$I_{RRM1}$	$V_{RRM} = 200\text{ V}, T_c = 25^\circ\text{C}$			20	$\mu\text{A}$
	$I_{RRM2}$	$V_{RRM} = 200\text{ V}, T_j = 150^\circ\text{C}$			2	mA
Forward voltage (DC)	$V_F$	$I_F = 2.5\text{ A}, T_c = 25^\circ\text{C}$			0.98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

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

2. \*1 :  $T_c = 25^\circ\text{C}$

\*2 :  $t_{rr}$  measuring circuit





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