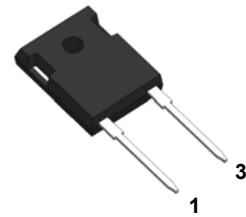


Features

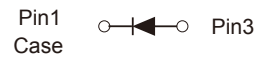
- Plastic package has Underwriters Laboratory flammability Classification 94V-0
- Ultrafast recovery characteristics
- Low forward voltage drop
- Low reverse leakage current
- Soft recovery characteristics
- High temperature soldering guaranteed: 260°C/10 seconds, 0.25"(6.35mm) from case
- Component in accordance to RoHS 2015/863/EU



TO-247AC

Typical Applications

- Anti-parallel diode
 - Switching power supply
 - Inverters
- Free wheeling diode
 - Motor controller
 - Converters
 - Inverters
- PFC
- Snubber, clamp diode



Base common cathode

Schematic Diagram

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	650	V
Maximum Average Forward Rectified Current	I _{F(AV)}	30.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method at Rated T _L)	I _{FSM}	300	A
Typical Thermal Resistance, Junction to Case	R _{θJC}	0.44 Typ	°C/W
		0.90 Max	
Operating Junction Temperature Range	T _J	-55 to +175	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

Electrical Characteristics (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage	I _R =200μA	V _{BR}	650	-	-	V
Blocking Voltage		V _R				
Instaneous Forward Voltage	T _J =25°C	I _F =15.0A	-	1.60	-	V
		I _F =30.0A	-	2.00	2.40	
	T _J =125°C	I _F =15.0A	-	1.20	-	
		I _F =30.0A	-	1.60	2.00	
Reverse Current	T _J =25°C	I _R ²	-	1	10	μA
	T _J =125°C		-	50	250	
Junction Capacitance	4V, 1MHz	C _J	-	121	-	pF
Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	-	26	30	ns
	I _F =1.0A, V _R =30V, di/dt=200A/us	t _{rr}	-	21	25	

Notes:

- Pulse test: 300 μs pulse width, 1% duty cycle
- Pulse test: pulse width ≤ 40ms

Ratings and Characteristics Curves

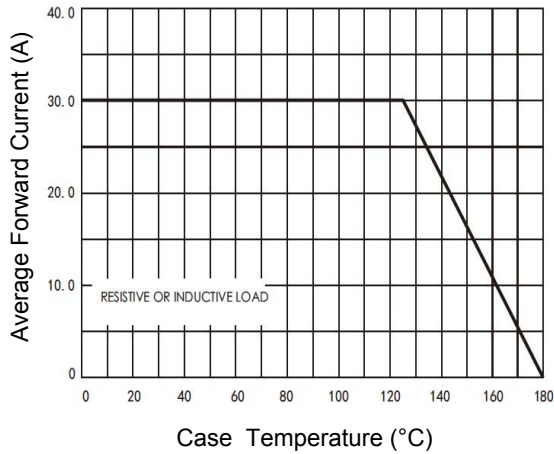


Figure 1. Forward Current Derating Curve

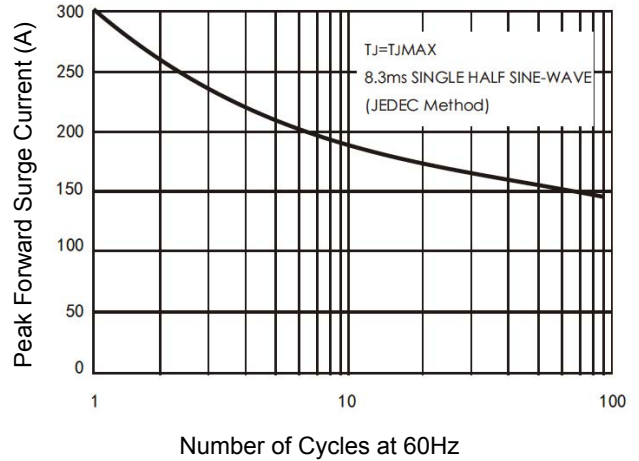


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

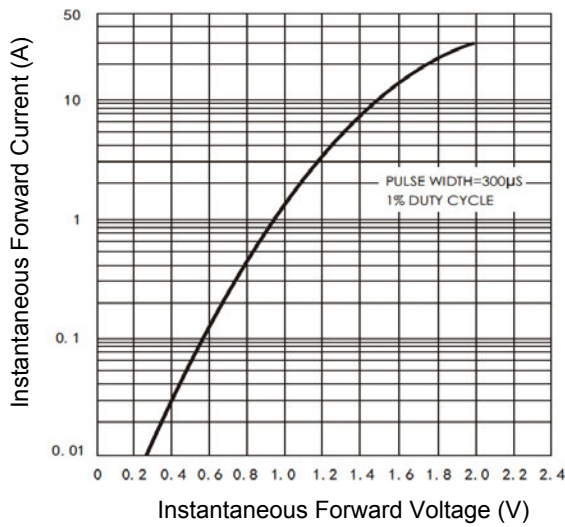


Figure 3. Typical Instantaneous Forward Characteristics

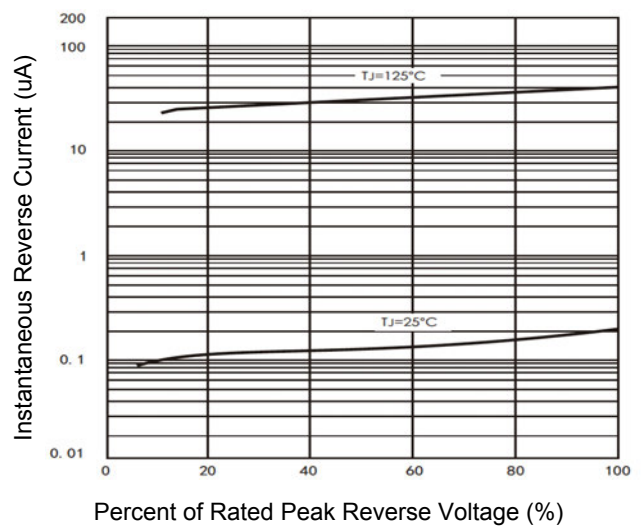


Figure 4. Typical Reverse Characteristics

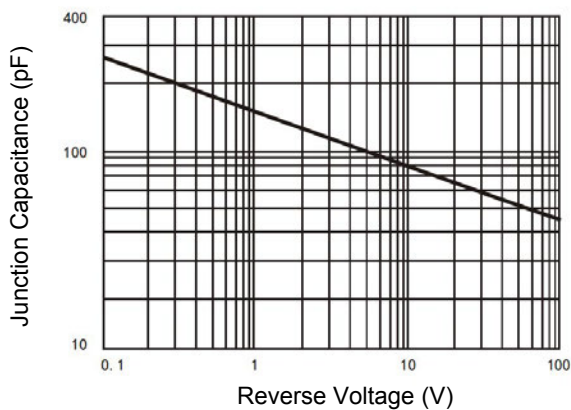
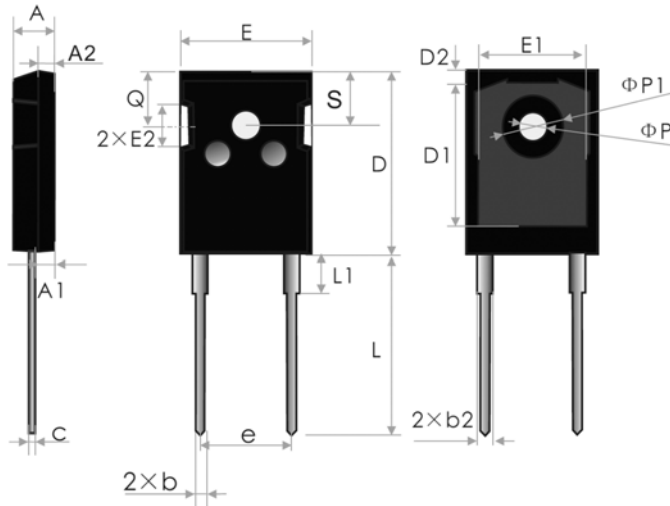


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (TO-247AC)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	4.70	5.30	0.185	0.209
A1	2.21	2.59	0.087	0.102
A2	1.50	2.49	0.059	0.098
D	20.30	20.70	0.799	0.815
E	15.48	16.24	0.609	0.639
E2	4.30	5.50	0.169	0.217
e	10.92		0.430	
L	19.80	20.30	0.780	0.799
L1	4.40	4.60	0.173	0.181
ΦP	3.50		0.138	
Q	5.38	6.19	0.212	0.244
S	6.14		0.242	
b	0.99	1.40	0.039	0.055
b2	1.65	2.39	0.065	0.094
b4	2.59	3.43	0.102	0.135
c	0.38	0.89	0.015	0.035
D1	13.07	-	0.515	-
D2	0.51	1.35	0.020	0.053
E1	13.45	-	0.530	-
ΦP1	7.20		0.283	
L2	2.10		0.083	

Order Information

Device	Package	Marking	Carrier	Quantity
GSMURH3065P	TO-247AC	MURH3065P	Tube	30pcs / Tube

For more information, please contact us at: inquiry@goodarksemi.com