

Dual Common-Cathode Ultra Low VF Schottky Rectifier

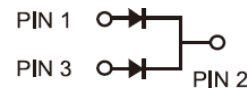
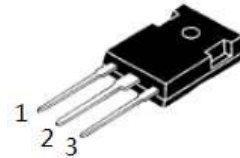
FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Epoxy : UL94 V-0 rated flame retardant
- Case: TO-247 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 2.03 grams

Primary Characteristic	
I_O	30A x 2
V_{RRM}	200V
I_{FSM}	200A
V_F Typical=5A, $T_J=125^\circ\text{C}$	0.58V
T_{Jmax}	175°C



Maximum Ratings (TA=25°C unless otherwise specified)						
Characteristics			Symbol	Value		Unit
Peak Repetitive Reverse Voltage			V _{RRM}	200		V
Working Peak Reverse Voltage			V _{RWM}	200		V
DC Blocking Voltage			V _{DC}	200		V
RMS Reverse Voltage			V _{RMS}	140		V
Average Forward Rectified Current (per diode)			I _O	30		Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)			I _{FSM}	200		Amps
Electrical Characteristics (TA=25°C unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ¹⁾	IF=5A	Ta=25°C	V _F	0.73	0.77	V
	IF=30A	Ta=25°C	V _F	0.95	0.99	V
	IF=5A	Ta=125°C	V _F	0.58	0.62	V
	IF=30A	Ta=125°C	V _F	0.74	0.78	V
Reverse Current ²⁾	VR=200V	Ta=25°C	I _R	5	15	μA
	VR=200V	Ta=125°C	I _R	3	10	mA

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)				
Characteristics		Symbol	Value	Unit
Typical Thermal Resistance, junction to case	TO-247	$R_{\theta JC}$	2	°C/W
Operating Temperature Range (in DC Mode)		T_J	-65 to +175	°C
Storage Temperature Range		T_{STG}	-65 to +150	°C

Notes (1): Pulse test: 300μs pulse width, 1% duty cycle.

Notes (2): Pulse width ≤ 40ms

Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

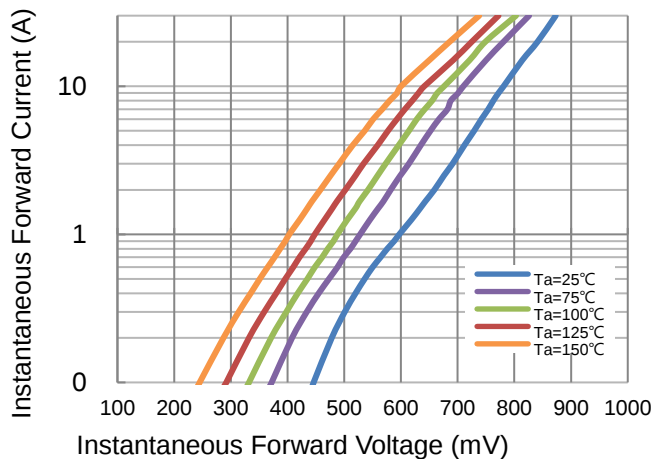


Fig 2. Typical Reverse Characteristics

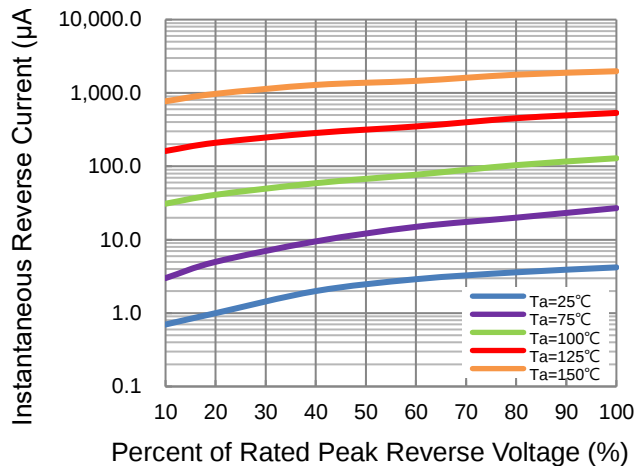


Fig 3. Typical Forward Current Derating Curve

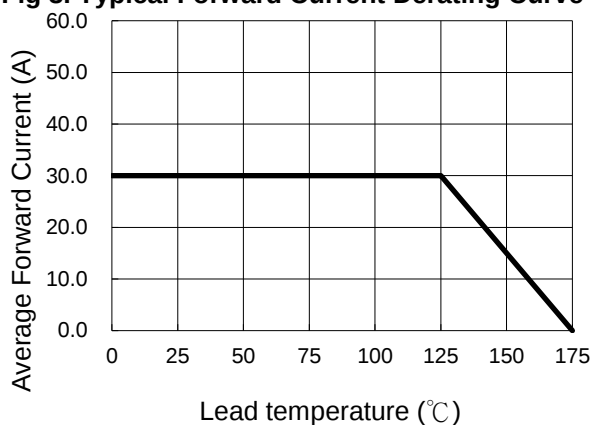
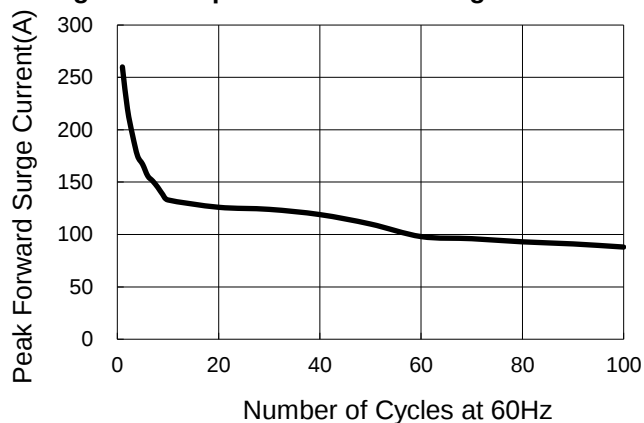


Fig 4. Non-repetitive Forward Surge Current



Marking Information

Motive SEMI
SLT
60200CPT
XXXXXXX

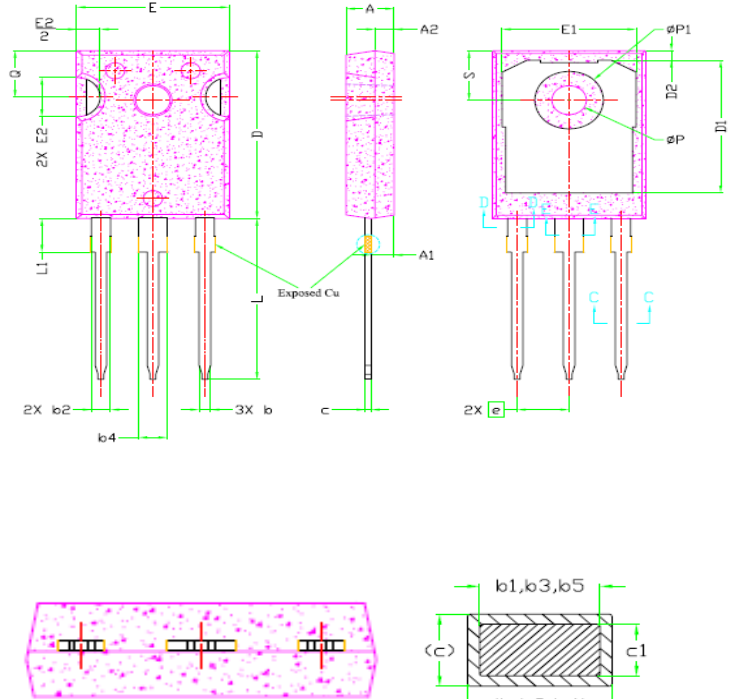
Motive SEMI
SLT
60200CPT
XXXXXXX
CPT=TO-247

=Series Name
=Product Type Marking Code
=Part Number Marking Code
=Product Tracking Code
=Dual TO-247

Package Outline Dimensions (in millimeters)

TO-247 (Type 1)

TO-247				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	4.83	5.21	0.19	0.21
A1	2.29	2.55	0.09	0.10
A2	1.50	2.49	0.06	0.10
b	1.12	1.33	0.04	0.05
b1	1.12	1.28	0.04	0.05
b2	1.91	2.39	0.08	0.09
b3	1.91	2.34	0.08	0.09
b4	2.87	3.22	0.11	0.13
b5	2.87	3.18	0.11	0.13
c	0.55	0.69	0.02	0.03
c1	0.55	0.65	0.02	0.03
D	20.80	21.10	0.82	0.83
D1	16.25	17.65	0.64	0.69
D2	0.51	1.35	0.02	0.05
E	15.75	16.13	0.62	0.64
E1	13.46	14.16	0.53	0.56
E2	4.32	5.49	0.17	0.22
e	5.44			
L	19.81	20.32	0.78	0.80
L1	4.10	4.40	0.16	0.17
ΦP	3.56	3.65	0.14	0.14
ΦP1	7.19REF			
Q	5.39	6.20	0.21	0.24
S	6.04	6.30	0.24	0.25



TO-247 (Type 2)

TO-247				
SYMBOL	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	15.00	16.00	0.591	0.630
B	20.00	21.00	0.787	0.827
C	41.00	42.00	1.614	1.654
D	5.00	6.00	0.197	0.236
E	4.00	5.00	0.157	0.197
F	2.50	3.50	0.098	0.138
G	1.75	2.50	0.069	0.098
H	3.00	3.50	0.118	0.138
I	8.00	10.00	0.315	0.394
J	4.90	5.10	0.193	0.201
K	1.90	2.10	0.075	0.083
L	3.50	4.00	0.138	0.157
M	4.75	5.25	0.187	0.207
N	2.00	3.00	0.079	0.118
O	0.55	0.75	0.022	0.030
P	Typ 5.08		Typ 0.20	
Q	1.20	1.30	0.047	0.051

