

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Forward Voltage Drop and Low Power Losses
- Very Low Profile and Typical Height of 1.7 mm

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	31.5	V
Average Rectified Forward Current	$I_{F(AV)}$	15 30	A
Per Diode Per Device			
Non-Repetitive Peak Surge Current (Per Diode) @8.3ms Half Sine Wave	I_{FSM}	200	A
Current Squared Time(Per Diode) @ 1ms≤t≤8.3ms	I^2t	166	A ² s

Internal Structure

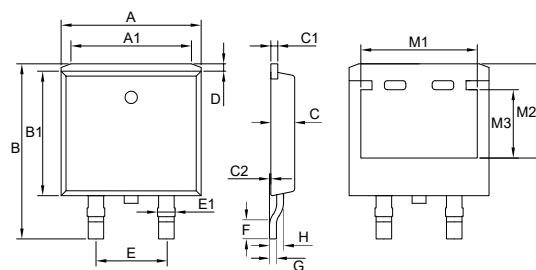
Pin	Description	Simplified Outline	Graphic Symbol
2&4	Cathode		
1&3	Anode		

Note :

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.

30 Amp Low VF Schottky Barrier Rectifiers 45 Volts

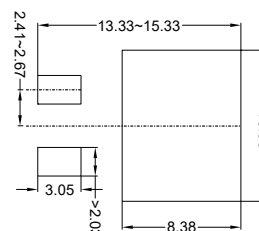
TO-263AC



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.388	0.407	9.85	10.35	
A1	0.323	0.339	8.20	8.60	
B	0.467	0.490	11.85	12.45	
B1	0.346	0.361	8.78	9.18	
C	0.062	0.074	1.57	1.87	
C1	0.014	0.026	0.35	0.65	
C2	0.000	0.008	0.00	0.20	
D	0.015	0.027	0.39	0.69	
E	0.196	0.204	4.98	5.18	
E1	0.044	0.056	1.12	1.42	
F	0.051	0.059	1.30	1.50	
G	0.014	0.026	0.35	0.65	
H	0.033	0.049	0.85	1.25	
M1	0.327	0.343	8.30	8.70	
M2	0.264	0.280	6.70	7.10	
M3	0.185	0.201	4.70	5.10	

Suggested Solder Pad Layout(mm)



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-C)}$	Thermal Resistance from Junction to Case			2		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			40		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=5A; T_J=25^{\circ}C$		0.40	0.50	V
		$I_F=5A; T_J=125^{\circ}C$		0.31	0.40	
		$I_F=15A; T_J=25^{\circ}C$		0.52	0.60	
		$I_F=15A; T_J=125^{\circ}C$		0.48	0.55	
Reverse Current	I_R	$V_R=45V; T_J=25^{\circ}C$			0.1	mA
		$V_R=45V; T_J=125^{\circ}C$			50	
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		2200		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

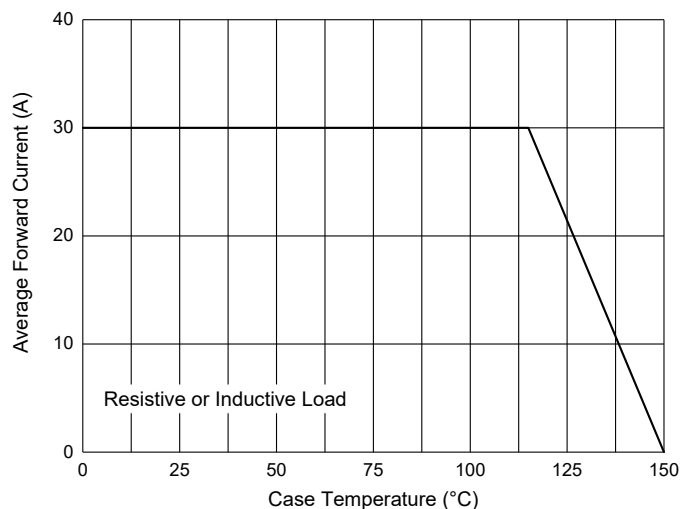


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

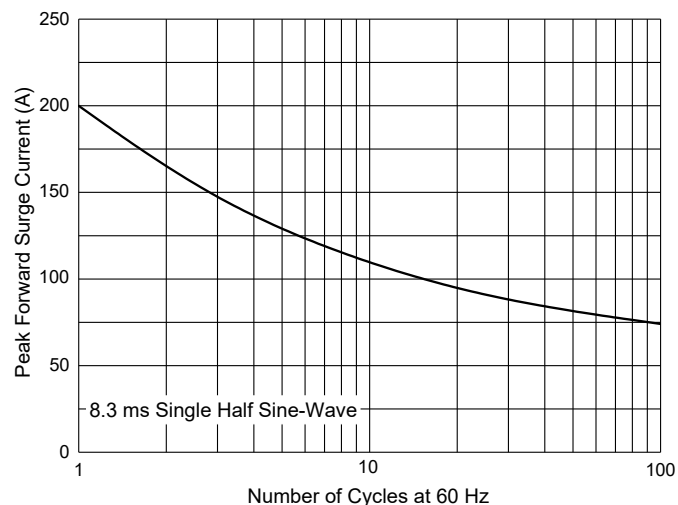


Fig. 3 - Typical Forward Characteristics

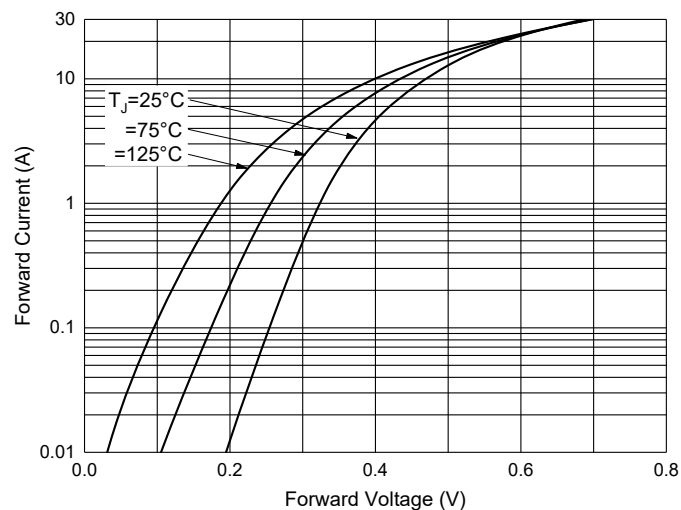


Fig. 4 - Typical Reverse Leakage Characteristics

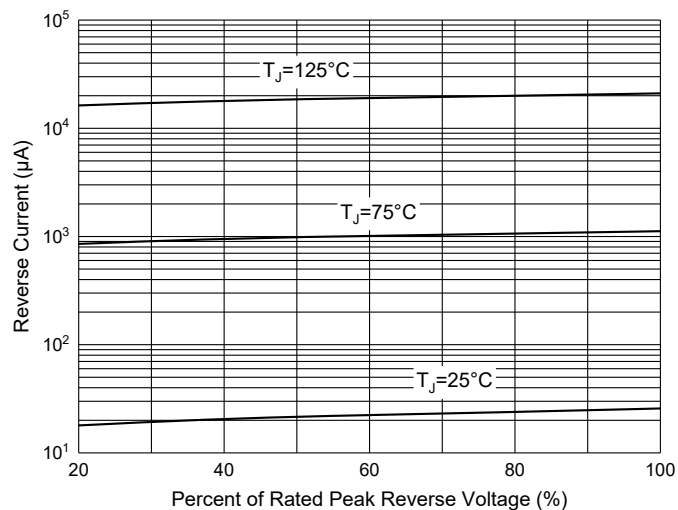
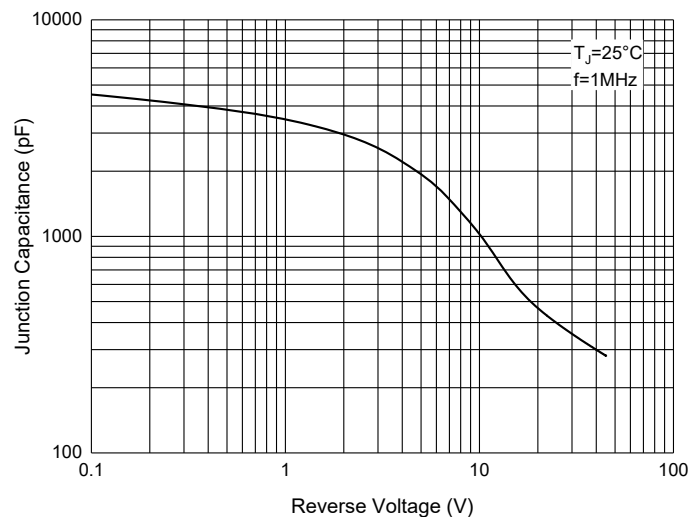


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 1500pcs/Reel

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