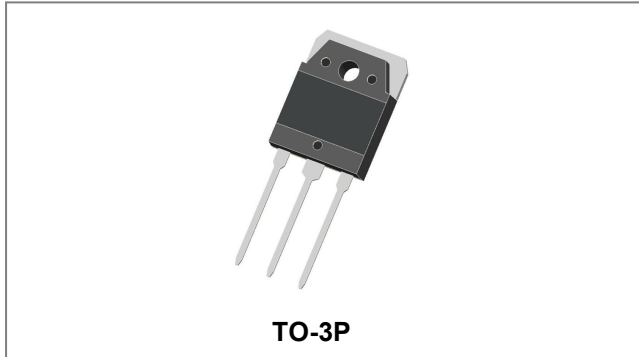


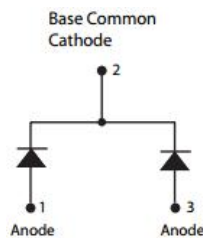
SDUR30Q60PT ULTRAFAST RECTIFIER



Applications:

- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders

Circuit Diagram



Features:

- Ultra-Fast switching
- High current capability
- Low reverse leakage current
- High surge current capability
- Terminals finish: 100% Pure Tin
- This is a Pb – free device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	600	V
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_c=100^\circ\text{C}$, rectangular wave form	15(Per Leg) 30(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I_{FSM}	8.3ms, Half Sine pulse	160	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (Per Leg)*	V_{F1}	@ 15A, Pulse, $T_J = 25^\circ\text{C}$	1.6	2.0	V
	V_{F2}	@ 15A, Pulse, $T_J = 125^\circ\text{C}$	1.3	1.7	V
Reverse Current (Per Leg)*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	0.3	20	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	0.2	1	mA
Reverse Recovery Time(Per Leg)	t_{rr}	$I_F=500\text{mA}$, $I_R=1\text{A}$, and $I_{rm}=250\text{mA}$, $T_J = 25^\circ\text{C}$	36	40	ns

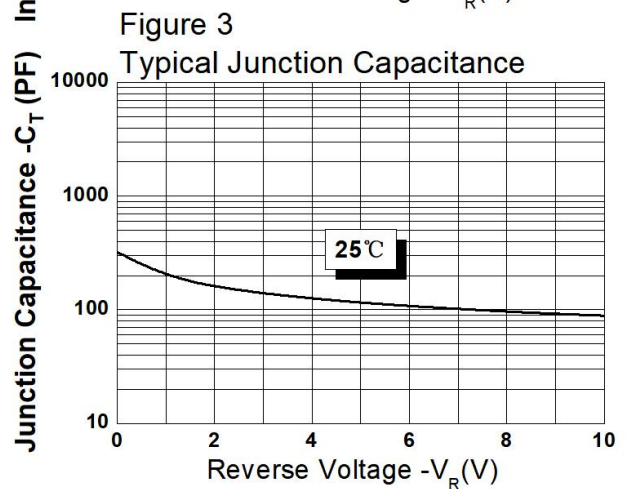
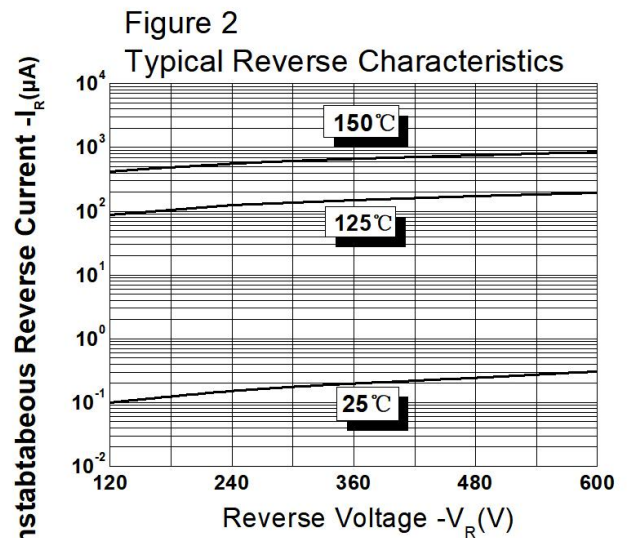
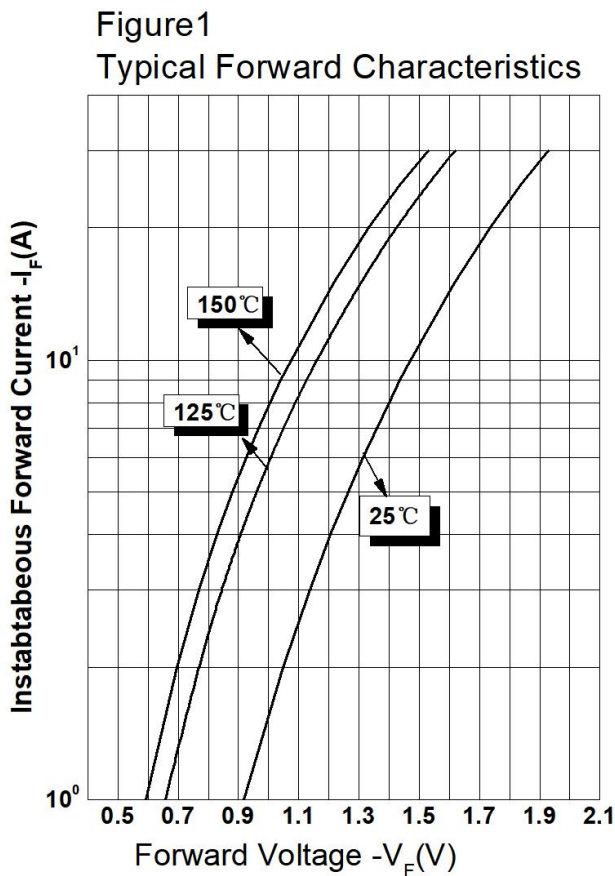
* Pulse width < 300 μs , duty cycle < 2%

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

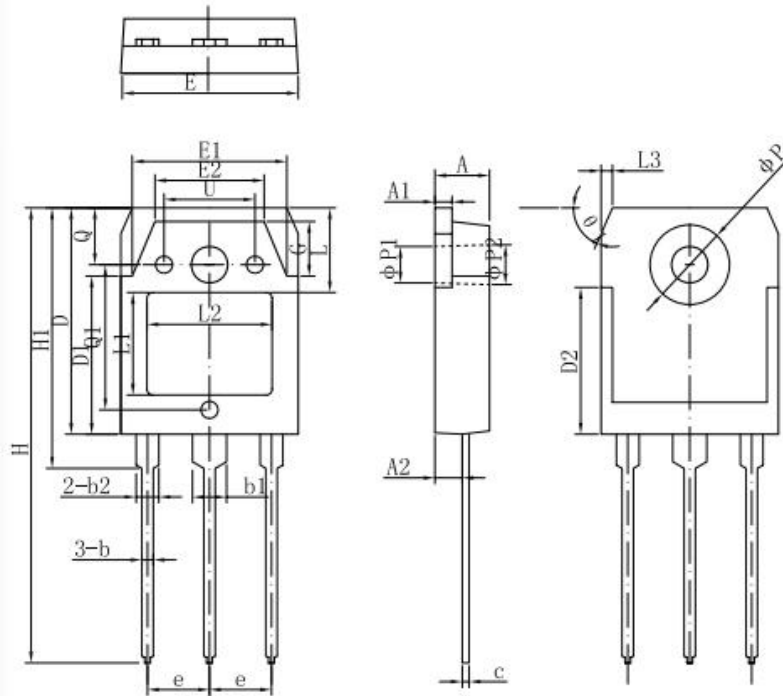
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	1.6	°C/W
Approximate Weight	wt	-	6.28	g
Case Style	TO-3P			

Ratings and Characteristics Curves



Mechanical Dimensions TO-3P

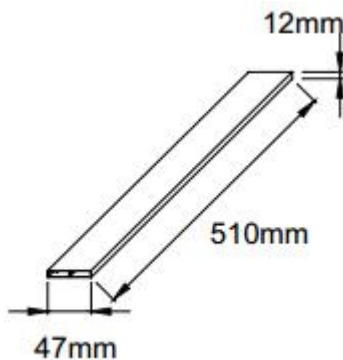


SYMBOL	Millimeters		
	MIN.	TYP.	MAX.
A	4.6	4.8	5.0
A1	1.4	1.5	1.6
A2	2.3	2.4	2.5
b	0.8	1.0	1.2
b1	2.9	3.0	3.25
b2	1.9	2.0	2.25
c	0.5	0.6	0.75
D	19.7	19.9	20.1
D1		13.9	
D2		12.9REF	
E	15.4	15.6	15.8
E1		13.6	
E2		9.6	
e		5.45	
G		4.8	
H	39.5	40.0	40.5
H1		22.9	
L		7.4	
L1		9.0	
L2		11.0	
L3		1.0REF	
P	6.8	7.0	7.2
P1		3.2	
P2		3.5	
Q		5.0	
Q1		12.76	
U		8	

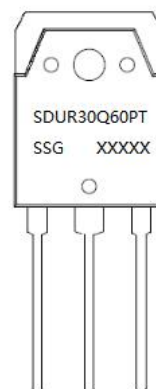
Ordering Information:

Device	Package	Shipping
SDUR30Q60PT	TO-3P(Pb-Free)	30pcs / tube

Tube Specification



Marking Diagram



Where XXXXX is YYWWL

SDUR = Device Type
30 = Forward Current (30A)
Q = Q
60 = Reverse Voltage (600V)
PT = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Technical Data
Data Sheet N2444, Rev. B



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