

SWITCHING REGULATOR APPLICATIONS

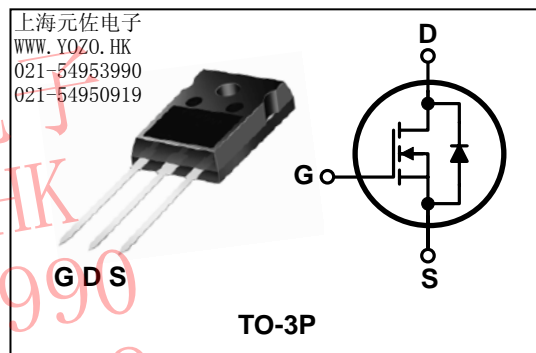
Features

- High Voltage: $BV_{DSS}=900V(\text{Min.})$
- Low C_{RSS} : $C_{RSS}=14pF(\text{Typ.})$
- Low gate charge : $Qg=62nC(\text{Typ.})$
- Low $R_{DS(on)}$: $R_{DS(on)}=1.4\Omega(\text{Max.})$

Ordering Information

Type No.	Marking	Package Code
SMK0990CI	SMK0990	TO-3P

PIN Connection



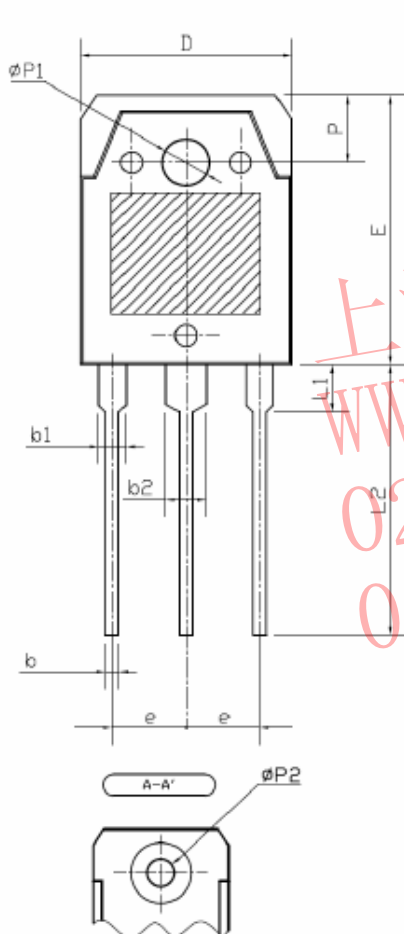
Absolute maximum ratings ($T_c=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Rating	Unit
Drain-source voltage	V_{DSS}	900	V
Gate-source voltage	V_{GSS}	± 30	V
Drain current (DC)*	I_D	($T_c=25^\circ\text{C}$)	9
		($T_c=100^\circ\text{C}$)	5.7
Drain current (Pulsed)*	I_{DM}	36	A
Drain power dissipation	P_D	130	W
Avalanche current (Single) ②	I_{AS}	9	A
Single pulsed avalanche energy ②	E_{AS}	900	mJ
Avalanche current (Repetitive) ①	I_{AR}	9	A
Repetitive avalanche energy ①	E_{AR}	28	mJ
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55~150	

* Limited by maximum junction temperature

Characteristic	Symbol	Typ.	Max	Unit
Thermal resistance	Junction-case	-	0.96	°C/W
	Junction-ambient	-	40	

Outline Dimension



SYMBOL	MIN	NOM	MAX
A	4.60	4.80	5.00
b	0.80	1.00	1.20
b1	1.80	2.00	2.20
b2	2.80	3.00	3.20
C	0.55	0.60	0.75
C1	1.45	1.50	1.65
D	15.40	15.60	15.80
E	19.70	19.90	20.10
e	5.15	5.45	5.75
L1	3.30	3.50	3.70
L2	19.80	20.00	20.20
P	4.80	5.00	5.20
$\phi P1$	3.30	3.40	3.50
$\phi P2$	(3.20)		
Q	1.20	1.40	1.60

NOTE

1. THESE DIMENSION DO NOT INCLUDE MOLD/TRIM PROTRUSION
2. < > IS REFERENCE