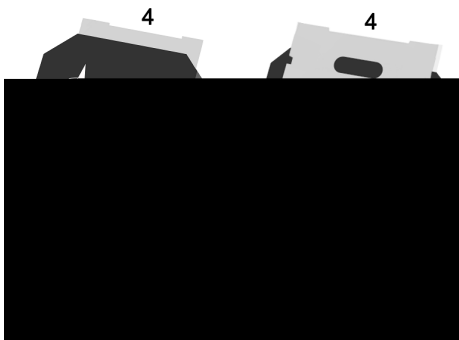
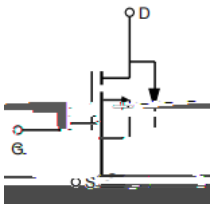


Rev.B Jul.-2024

TO-252 P MOS  
P-CHANNEL MOSFET in a TO-252 Plastic Package.

Low  $R_{DS(on)}$ , low gate charge, low  $C_{rss}$ , fast switching, HF Product.

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.



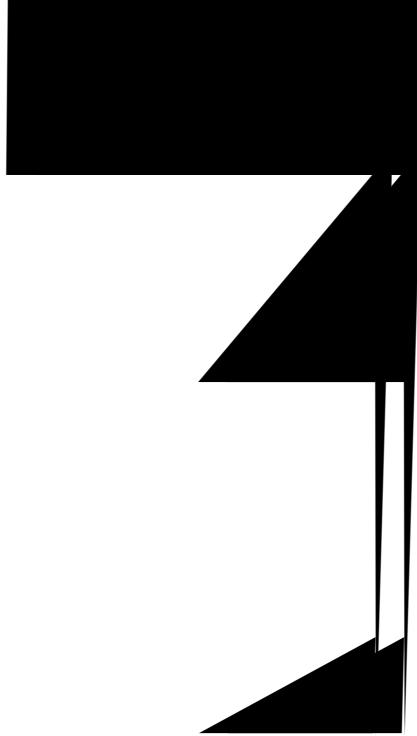
PIN 1 G      PIN 2 D      PIN 3 S      PIN 4 D

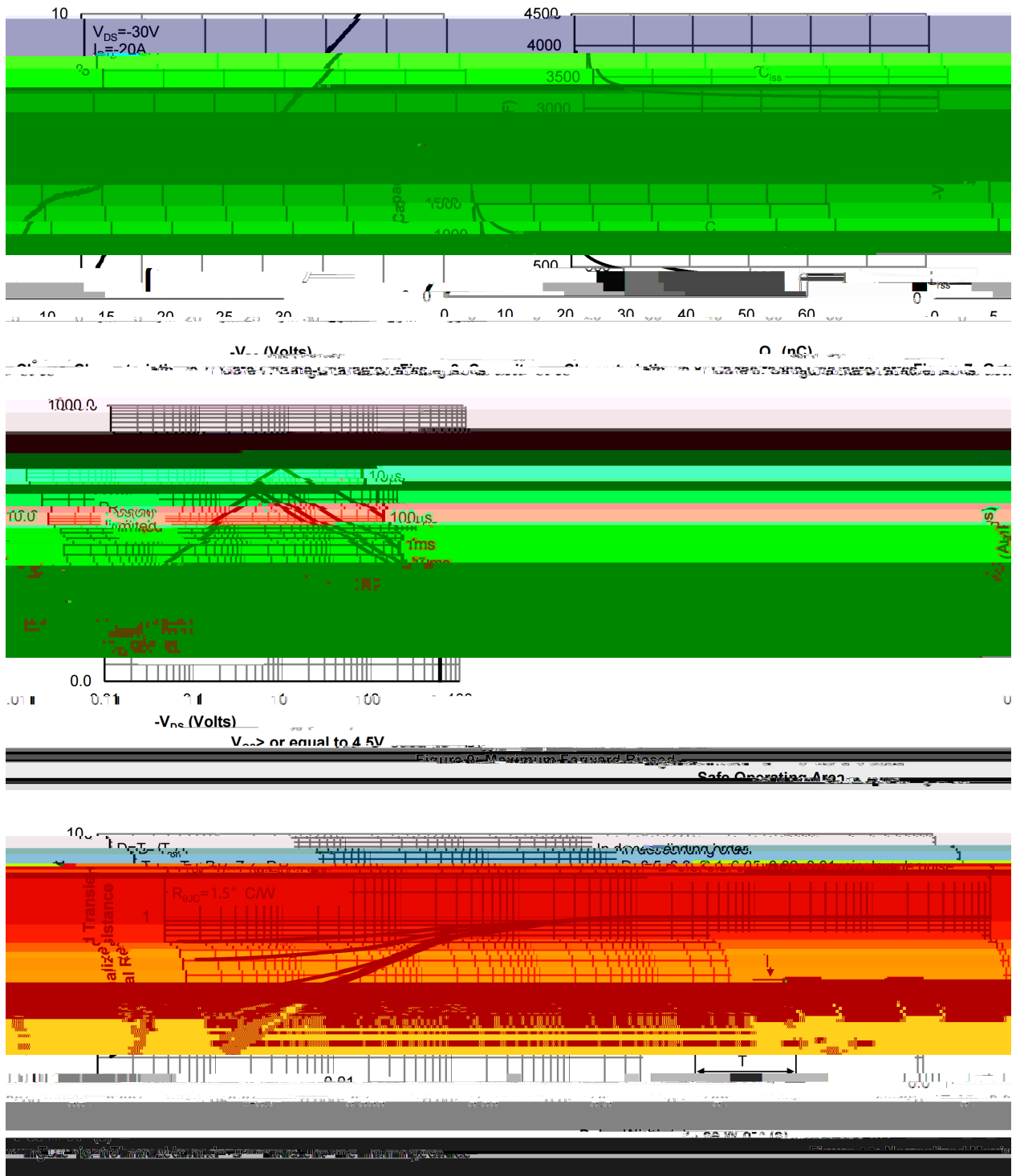
See Marking Instructions.

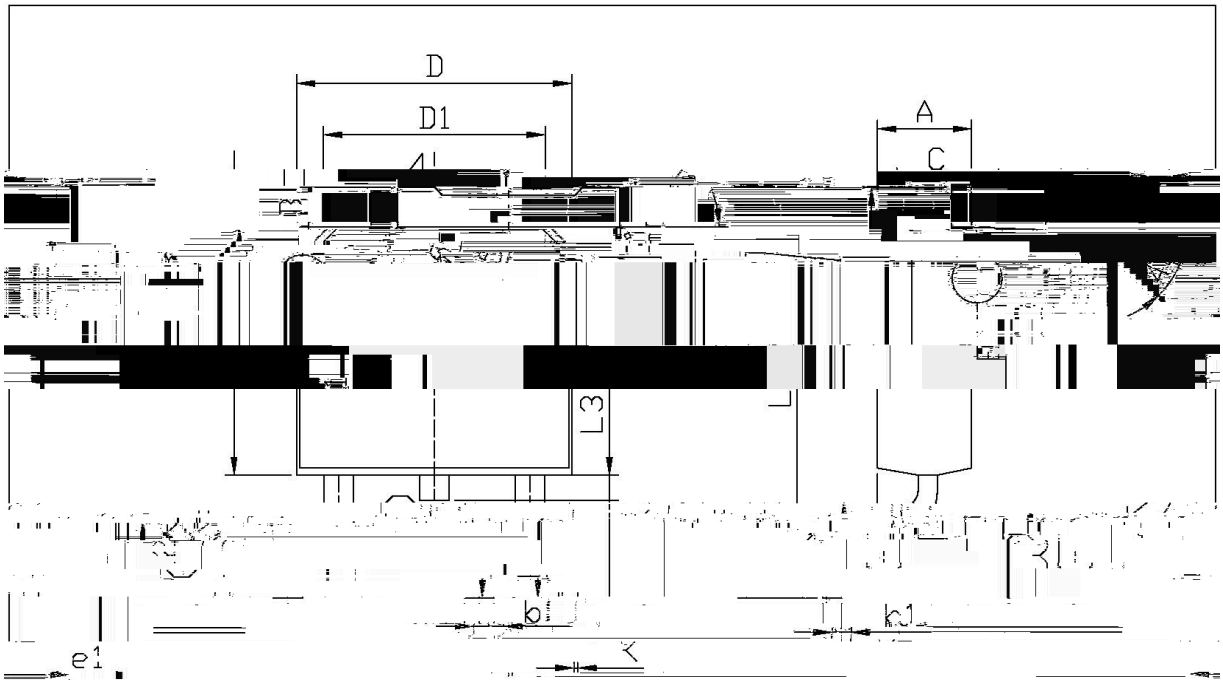
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-60	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	-50	A
Drain Current - Pulsed	$I_{DM}$	-200	A
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	85	W
Single Pulsed Avalanche Energy	$E_{AS}$	250	mJ
Avalanche Current(L=0.5mH)	$I_{AS}$	25	A
Junction and Storage Temperature Range	$T_j, T_{stg}$	-55 to 150	
Thermal resistance, junction - ambient	t 10s	$R_{JA}$	25
	Steady-State		50
Thermal resistance, junction - case	Steady-State	$R_{JC}$	1.5

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=-250\text{ A}$	-60	-68		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=-60V$ $V_{GS}=0V$			-1.0	A
		$V_{DS}=-48V$ $T_C=150$			-10	
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 20V$ $V_{DS}=0V$			$\pm 0.1$	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\text{ A}$	-1	-1.6	-3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V$ $I_D=-20A$		30	35	m
	$R_{DS(on)}$	$V_{GS}=-4.5V$ $I_D=-10A$		40	45	m
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=-1A$			-1.2	V
Gate resistance	$R_g$			10		
Input Capacitance	$C_{iss}$			3200		pF
Output Capacitance	$C_{oss}$	$V_{DS}=-25V$ $V_{GS}=0V$ $f=1.0MHz$		800		pF





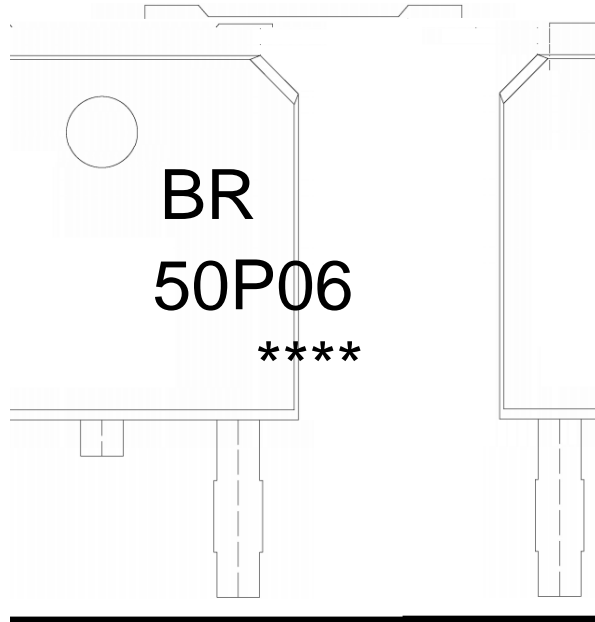




单位: mm

Dimensions	Millimeters	Dimensions	In Millimeters
Min	Max	Min	Max
e1	2.24	2.34	
B	0.95	1.25	
0.85	1.35	0.45	0.5
0.45	0.55	0.50	0.60
0.10	D1	5.10	5.50
		K	6.00

**TO-252**



BR

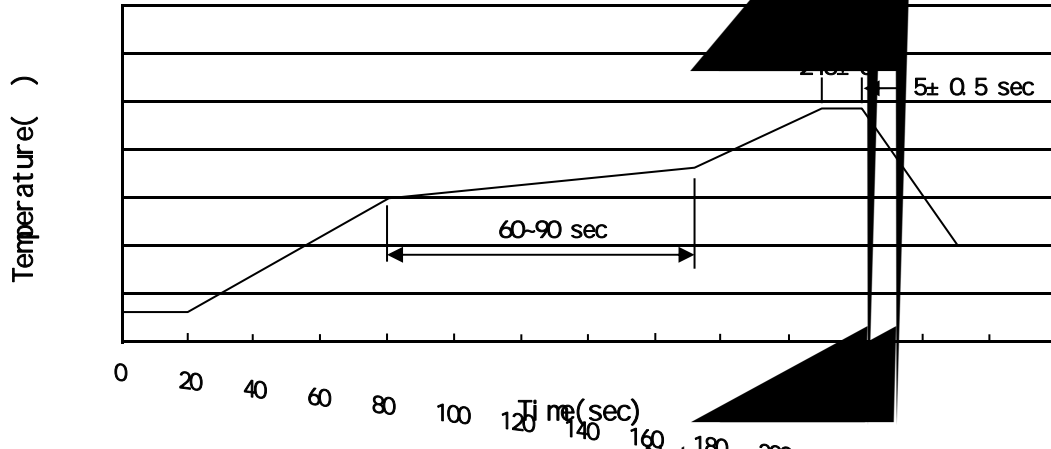
Note:

BR: Company Code

50P06: Product Type Code

\*\*\*\*: Lot No. Code, code change with Lot No.

( Temperature Profile for IR Reflow Soldering(Pb-Free)



Note: 150 180 245.5 260 280

- 1 150 180 60 90sec; 1.Preheating:150~180 , Time:60~90sec.
- 2 245.5 5 ± 0.5sec; 2.Peak Temp.:245.5 , Duration:5 ± 0.5sec.
- 3 2~10 /sec. 3. Cooling Speed: 2~10 /sec.

260 ± 5 10 ± 1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Reel	Dimension (unit mm <sup>3</sup> )	
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box		Inner Box	Outer Box
TO-252	2,500	2	5,000	6	30,000	13 × 16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180