



- 2 & ' \$ \$ % ' 3 6 6 H U L H V

5HY \$

^ Z/Wd/KEW

7KH SURGXFWV D B S W R W R X S O L H U H U L Q
 ',3 SDFNDJH ZLWK G R U P I U Q I Q W S O H L R Q V
 FRQVLVWV RI DQ L Q F I D O O H E R X ' S B S W W
 KLJK JDLQ KLJK V S W H R G \$ & F W R S H , W H S
 JXDUDQWHHG SHUIR U L P F D Q W F L R Q Q Q W S W F
 WR , W L V S K \ V L F D O O \ V P D O O H U D Q Q
 V D I H W \ V W D Q G D U H G V L I R V X O B W L R Q F , W
 V P D O O H U I R R W S W L S S W L V F D O V L V R Q R / Q W R D V
 V W D Q G D U G F H U W I D D O V L R V H \$ Q L H O V H
 JXDUDQWHHG FRPPRQ P P R X G L W W U B Q \ V L H
 LV L G H D O I R U V P D Q G S Q Z M V 0 * 2 6 7 (7 J D
 7KH SURGXFWV D U H Q Z L X G H W O U L X V C H G Q L Y C H U
 J D W H G U L Y H U V 0 2 8) (0 W D M Q G S E W L R Q
 K R P H D S S O L D Q F H V

The block contains two photographs of integrated circuits (chips) and a schematic diagram. The top photo shows a chip with several pins, labeled ':K i r ô W'. The middle photo shows another chip, labeled ':K i r ô ^'. The bottom part is a schematic diagram of a circuit with various components and labels like '1 &', 'S Q R G H', '& D W K R G H', '9 &', '1 &', '9 2 2 X W S X W', and '* 1'.

D /E & dhZ ^

\$ PD[LPXP SHDN RXWSXW FXUUHQW
 +LJK LVRODWLRQ 9506
 %XIIHU ORJLF W\SH
 2SHUDWLQJ W H U P S Q I J H D W X J U & W R f &
 5(\$&+ 5R+6 FRPSOLDQFH
 +%0 + \$ 00 0 &'0 &
 &4& DSSURYHG
 9'(DSSURYHG
 8/ DSSURYHG

dOE μšZ d o

/(')	9& 9(3RVLWLYH	9& 9(*RLQJHJDWLYH *RLQJ	2XWSXW
2))	9	9	/RZ
21	9	9	/RZ
21	9 9	9 9	75\$16,7,21
21	9 9	9 9	+,*+



^K>hd D y/DhD Z 7HPHSAUDWXUH f&

3DUDPHWHU		6\PERO	9DOXH	8QL
/('	)RUZDUG &XUUHQW)		
	3HDN)RUZDUG &XUUHQW	3	7	\$
	5HYHUVH 9ROWDJH	95		
	3RZHU 'LVVLSDWLRQ	3		P:
'HWHFWRU	2XWSXW 9ROWDJH	2	9	
	6XSSO\ 9ROWDJH	9&&		
	3RZHU 'LVVLSDWLRQ	3&		P:
,VRODWLRQ 9ROWDJH		9LVR	8	9UPV
2SHUDWLQJ 7HPHSAUDWXUH		7RSU	a	
-XQFWLRQ 7HPHSAUDWXUH		7M		
6WRUDJH 7HPHSAUDWXUH		7VWJ	a	
7RWDO 3RZHU 'LVVLSDWLRQ		3WRW		P:
6ROGHULQJ 7HPHSAUDWXUH		7VRO		

EKd iiii • %oμo• U iiii, i (œ <μ v Ç
 EKd i ()œ iu]vμš U ZX,XAđi•đi9

> dZ/ > , Z d Z 7HPHSAUDWXUH f&

3DUDPHWHU		6\PERO	&RQGLWLRQ	0LQ	7\ S	0L
,QSW	)RUZDUG 9ROWDJH )	)	9P\$	,		9
	5HYHUVH &XUUHQW ,5	5	9	9		\$
	7HUPLQDO &DSDFLWDFH	9	1 0+&			S)
2XWSXW	3HDN +LJK OHYHO &XUUHQW	23+	9 ₂ 9&& 9 "OVH ZLGWK" V			\$
			9 ₂ 9&& 9 "OVH ZLGWK" V			\$
	3HDN /RZ OHYHO &XUUHQW	23/	9 ₂ 9((9 "OVH ZLGWK" V			\$
			9 ₂ 9((9 "OVH ZLGWK" V			\$
	+LJK /HYHO 6XSSO\ &XUUHQW	9&&	9 ₂ 2SHQ			P\$
	/RZ /HYHO 6XSSO\ &XUUHQW	9&&	9 ₂ 2SHQ			P\$



+LJK /HYHO 2XWSXW ₂ +9ROWD ₂ JH ₉		) P\$ 9				9
/RZ /HYHO 2XWSXW ₉ ROWD ₉ JH ₉		) 9 P\$				9
7KUHVKROG ,QSXW ₉ +XU ₉ UHQW ₉		) 9 P\$				P\$
7KUHVKROG ,QSXW ₉ ROWD ₉ JH ₉		) 9 P\$				9
6XSSO\ 9ROWD ₉ JH ₉		) 9 P\$				
89/2 7KUHVKROG	989/2	) 9 P\$				9
	989/2	) 9 P\$				9

^t/d ,/E' ^W /&/ d/KE

3DUDPHWHU	6\PERO	&RQGLWLRQ	0LQ	7\S	0D
3URSDJDWLRQ 'HOD\ 7LPH WR +LJK 2XWSXW /HYHO	W ¹	5J &J Q)) : P\$ 9&& 9			
3URSDJDWLRQ 'HOD\ 7LPH WR /RZ 2XWSXW /HYHO	W ⁴	5J &J Q)) : P\$ 9&& 9			
3URSDJDWLRQ 'HOD\ 'LIHUHQFH %HWZHHQ \$Q\ 7ZR 3DUWV	W ⁴ / W ³	5J &J Q)) 8: P\$ 9&& 9			QV
2XWSXW 5LVH 7LPH	WR	5J &J Q)) : P\$ 9&& 9			
2XWSXW)DOO 7LPH	WR	5J &J Q)) : P\$ 9&& 9			
&RPPRQ 0RGH 7UDQVLHQW ,PPXQLW\ DW +LJK /HYHO 2XWSXW	W ²	) P\$ 9&& 9 7D 92 PLQ 9&0 9SS			N9 V



&RPPRQ 0RGH 7UDQVLHQW ,PPXQLW\ DW /RZ /HYHO 2XWSXW	9&& 9 7D 92 PD[9 9&0 9SS) P\$ “			N9 V
---	------------------------------------	------------	--	--	------

o o d Ç%] o ÀîÇµ • š d
 E}š W /v%µš •]Pv o ~ (Aîñl, ÌU µš ÇAñ]i•9 b š•CEŠZŠ (vA ññ•%o} CE ÁoZ }•Z X]v
 %oCE} v •šCE Ç Á]CE]vP %o]š v X
 E}š W ,D]• šZ u Æ]uµu CE š } ((oo } (šZ }uu}v uµ•š Áyoš ÁP]š Z
 šZ }µš%µš À}oš P]v šZ Úá]P]XZ]PZ •š š ~sK
 E}š W D>]• šZ u Æ]uµu CE š } (CE]• } (ššZ v }uµµvšu]v Ā]š
 šZ }µš%µš À}oš P]v šZ ØóšPX] o}Á •š š ~sK

Z }uu v K%o CE š]vP⁷⁸ }v]š]]v•

&KDUDFWHU LVWLFV 6\PERO 0LQ 7\S					OD[
,QSXW 2Q VWDWH,) &X U UHQW					P\$
,QSXW 2II VWDWH ,9R,OWDJH 9					
6XSSO\ 9ROWDJH 9&&					9
2SHUDWLQJ)UHTXHQFV					N+]

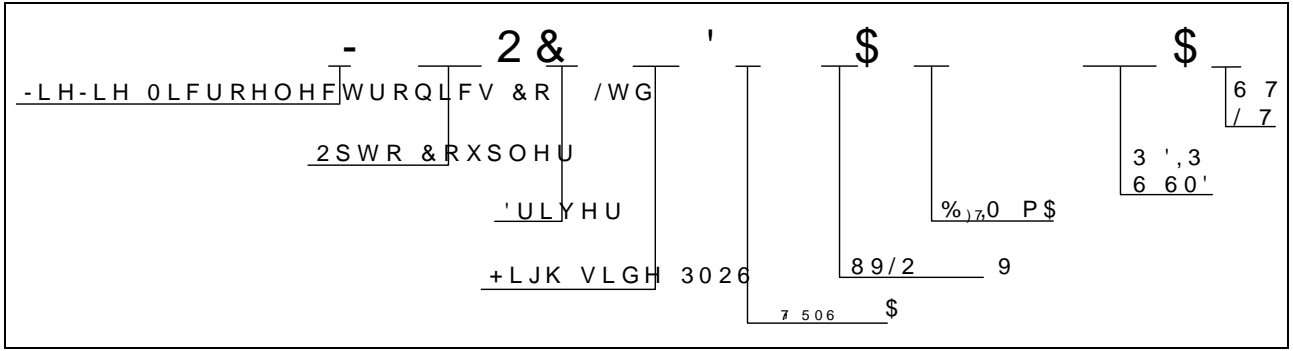
E}š W dZ CE }uu v }%o CE š]vP }v]š]]v} CE P•À CE Ç•š} } š]Pw
]vš v %o CE (}CEu v } (šZ À] X Zv %ov CE Áu ošµ CE]Z w]CE %o
 •Ç•š u •]Pv µ•]vP ššZ]•o Ā]CE]U o Z•CE]š]CE]š]šZ]š •ž}µo o•
 }v•] CE X
 E}š W CE u] %o]š}CE ~iXí... &• •Z}µo s }vvv š%o]v šČÁ ~VE %o]š
 •š]o] šZ }%o CE P]]v p[]v ZCEP Zur%o o] (] CE X KšZ CE Á]• U šZ]• %o Z
 %oCE}%o CE oÇX dZ Ç]µo•• %o]š}CE]šZ]v í%o]v X(
 E}š W dZ CE]• v (oo š]u • } (šZ]v%µšZ}vri]X CE CE•vš •Z}µo
 E}š W /(šZ CE]•]vP •o}%o } (šZ (}PE%šZ o Ç Ā}oš}CE]•s•š %oU •š o
]vš CE v o]CE µ]š• všv}š PµCE š} • š ĭ sl...• }CE o•• X}CE CE]•
 E}š W v}š • šZ }%o CE]š]šZ CE v P]u u v }%o]CE]š]X P }

- 2 & ' \$ \$ %



- LH-LH 0LFURHOHFWURQL

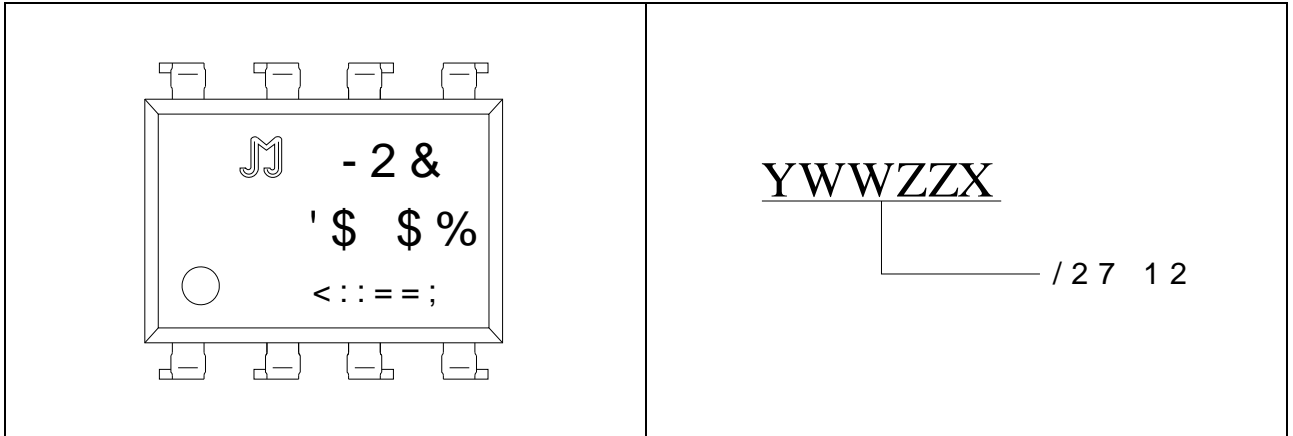
KZ Z/E' /E&KZD d/KE



%

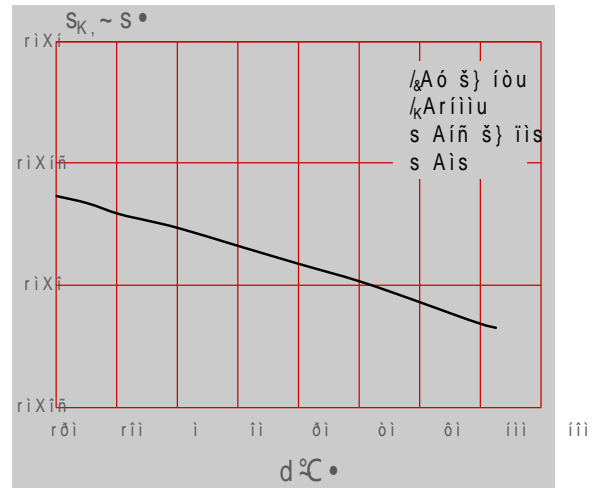
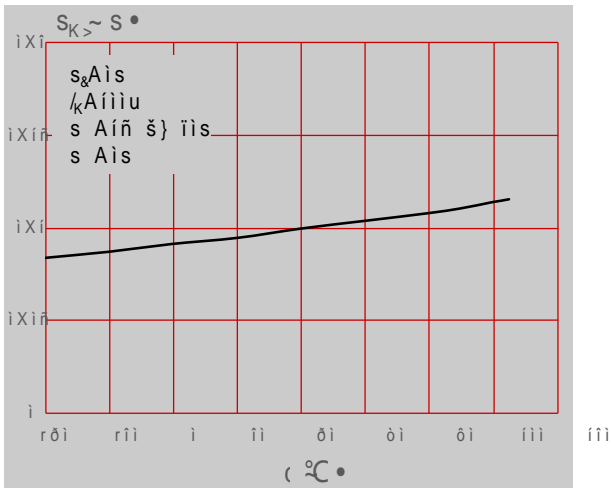
W I]vP Yμ vš]šÇ	
K% š]}v	Yμ vš]šÇ
/W	ñi hv]š•ldμ
^D	íîî hv]š•lZ o

D Z</E'

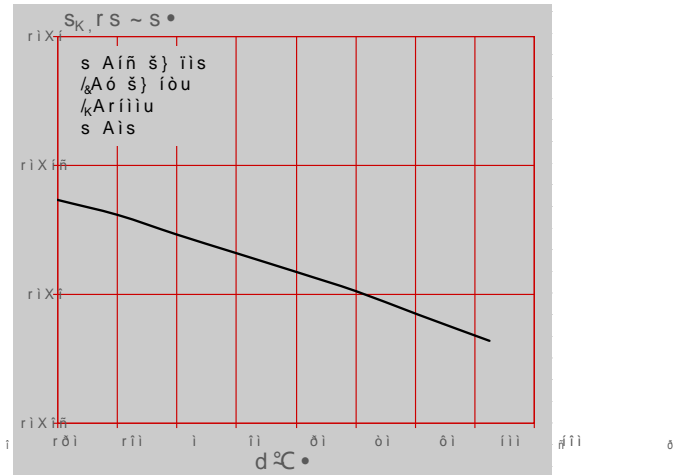
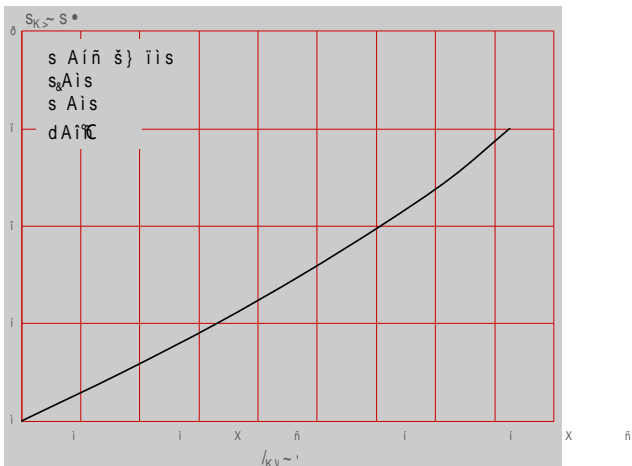




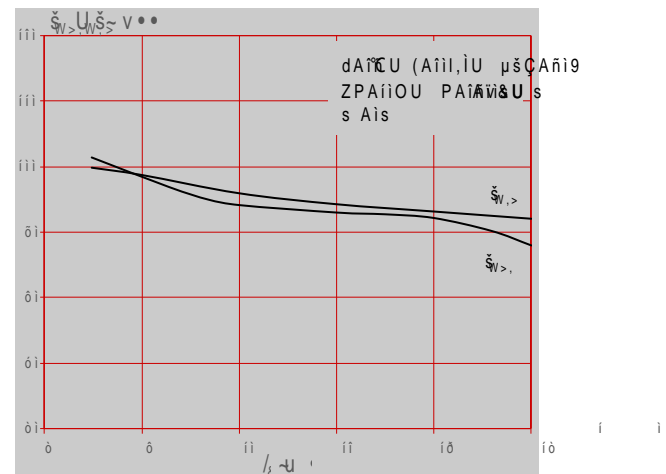
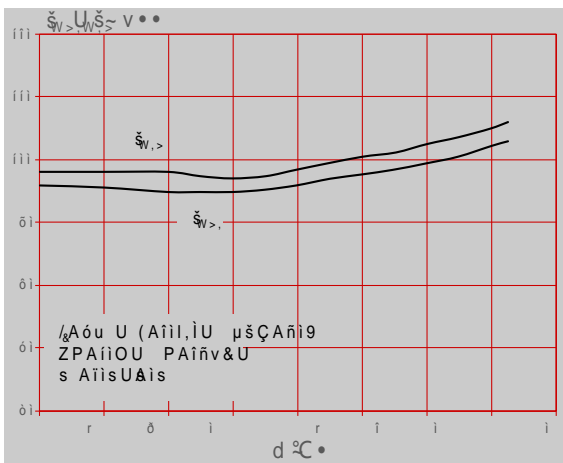
), * /RZ OHYHO 2XWSXW 9ROWDHW, * +LJK OHYHOR 2XWSXW 9ROWDHW \$PELHQW 7HPSHUDWXUH



), * 3HDN /RZ OHYHO 2XWSXW &XUUHQW ¥VJKRZHYHO 2XWSXW 9ROWDHW OHYHO 2XWSXW 9ROWDJH \$PELHQW 7HPSHUDWXUH



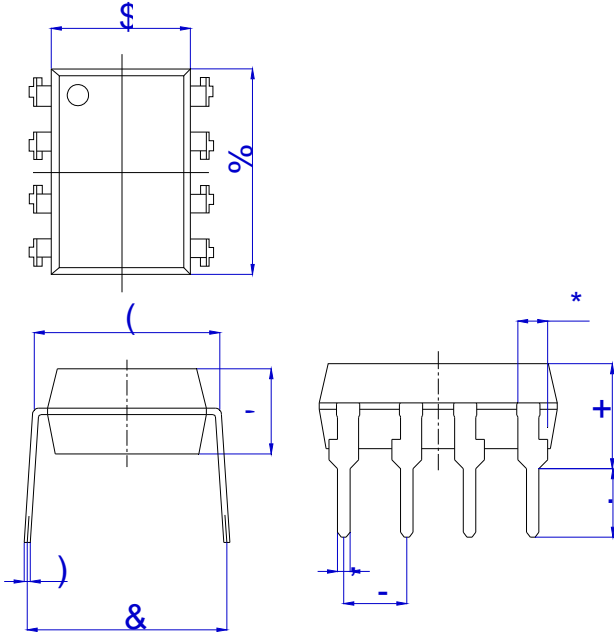
), * 3URSDJDWLRQ 'HOD\ 7LPH YV)\$PELHQWSDJDWLRQ 'HOD\ 7LPH YV &XUUHQW





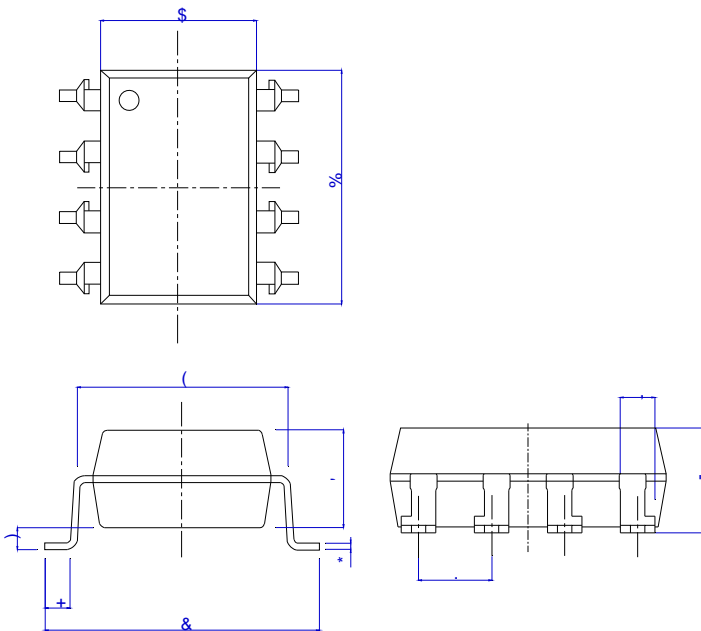
W I P] u v •] } v ~ h v] š W u u •

6WDQGDUG ', 3 7\SH



5HI	'LPHQVLRQV					
	0LOOLPHWHUV			,QFKHV		
	0LQ	7\S	0D[	0LQ	7\S	0D[
\$						
%						
&						
'						
(
)						
*						
+						
,						
-						
.						

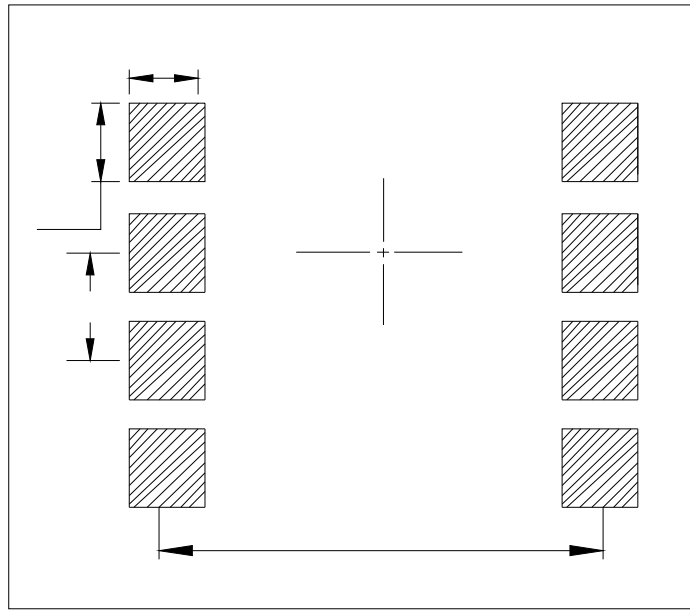
2SWLRQ 60' 7\SH



5HI	'LPHQVLRQV					
	0LOOLPHWHUV			,QFKHV		
	0LQ	7\S	0D[	0LQ	7\S	0D[
\$						
%						
&						
'						
(
)						
*						
+						
,						
-						
.						

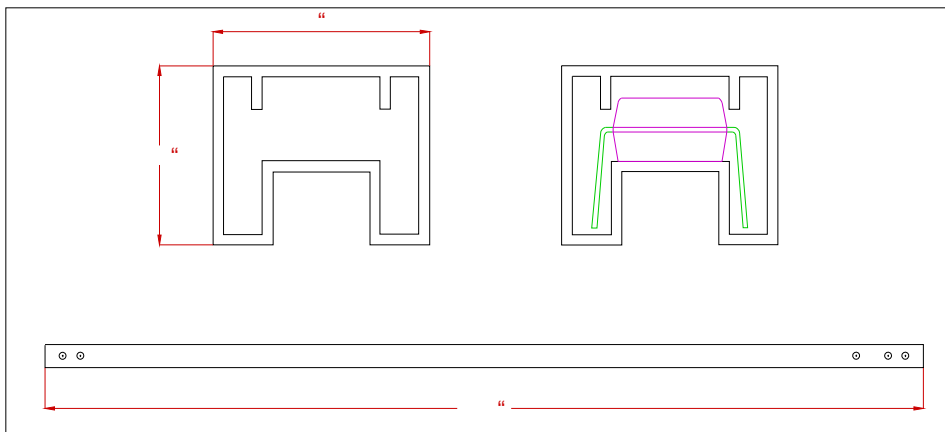


Z KDD E ^K> Z D ^< ~]u v•]}v•]v uu μvø •• }šZ Œ



dh ^W /&/ d/KE^ ~]u v•]}v•]v uu μvo •• }šZ ŒÁ]•

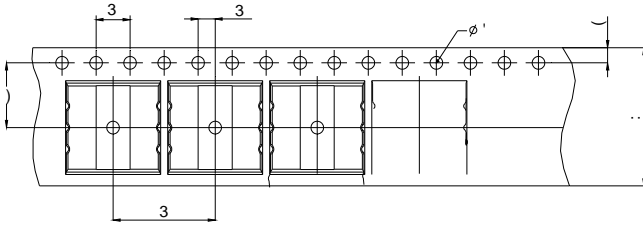
6WDQGDUG ',3





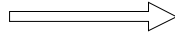
ZZ/ Z d W ^W /&/ d/ħ]E^ }v]uu μvo •••ššž ĆÁ]•

2SWLRQ 6 /



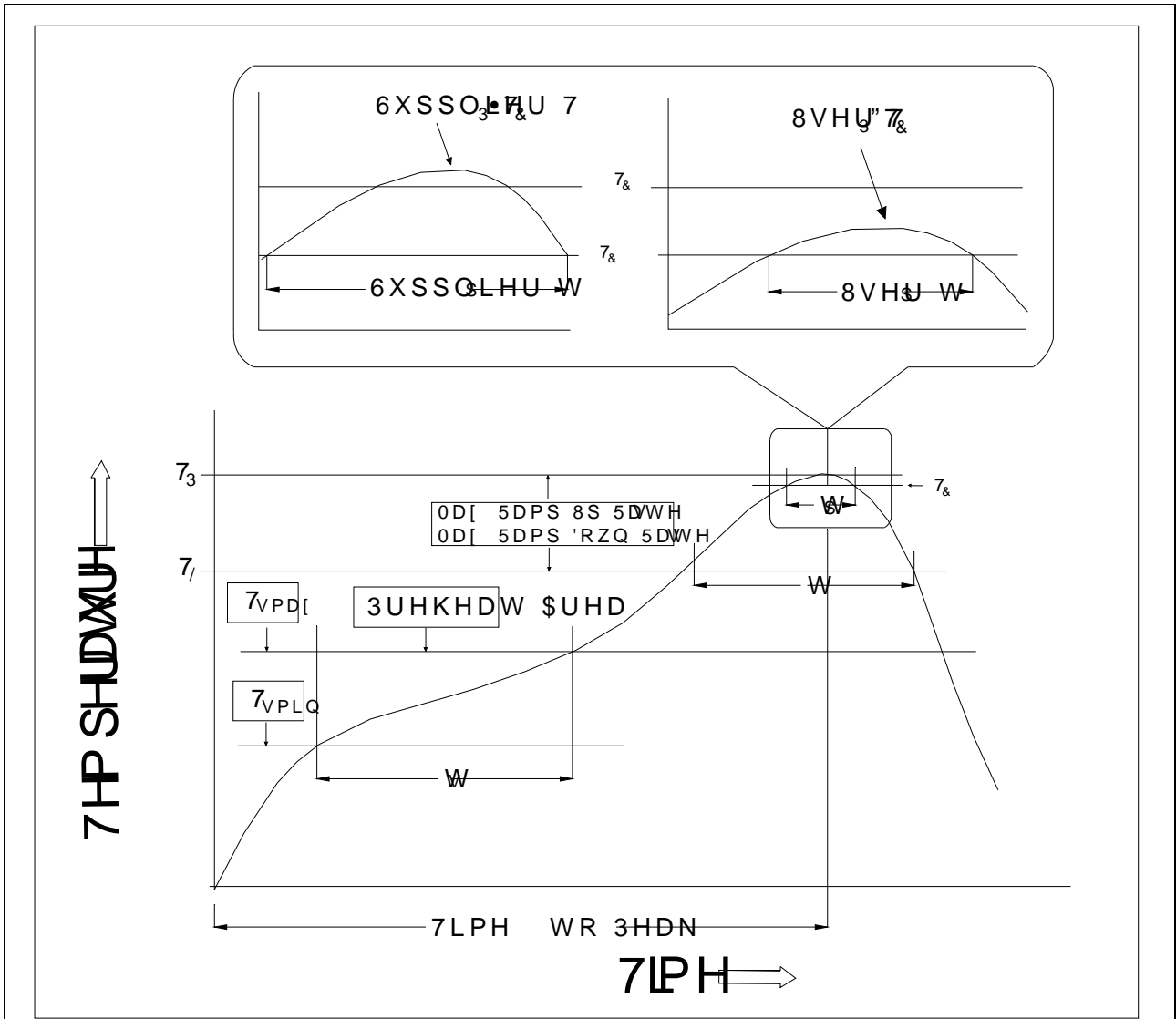
7

5 HI	'LPHQVLRQV					
	0LOOLPHWHUV ,QFKHV					
	0LQ	7\ S	0D[	0LQ	7\ S	0D[
'						
3						
3						
3						
(
)						
7						
:						





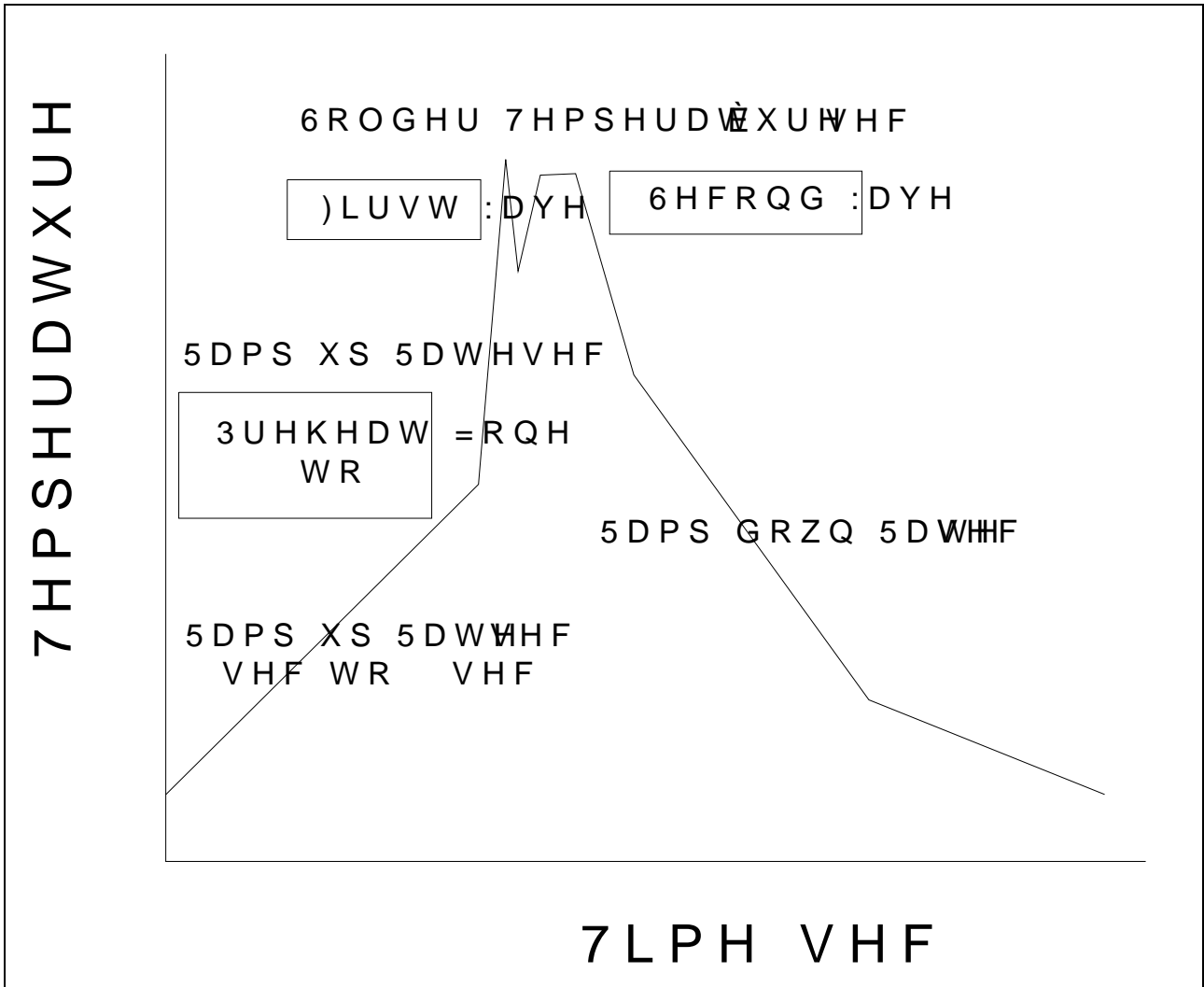
Z & > Kt / E & K Z D d / K E



3URILOH)HDWXUH Q 3E \$VVHPEO\	3URILOH 3E)UHH \$VVH
7HP SHUDWXUH 0LQ 7VPLQ	
7HP SHUDWXUH 0D[7VPD[
7LPH WV IURP 7VPLQ WR 7VPD[	VHFRQG V
5DPS XS 5DWH W/ WR W VHFRQG PD[	VHFRQG PD[
/LTXLGXV 7HP SHUDWXUH 7/	
7LPH W/ 0DLQWDLQH G \$ERYH 7/	VHFRQG V
3HDN %RG\ 3DFNDJH 7HP SHUDWXUH	
7LPH W3 ZLWK LQ	VHFRQG V
5DPS GRZQ 5DWH 73 WR VHFRQG PD[	VHFRQG PD[
7LPH WR 3HDN 7HP SHUDWXUH	PLQXW R\ QD\ HV PD[



t s ^K> Z/E'



, E ^K> Z/E' z ^K> Z/E' /ZKE

6ROGHULQJ 7HPSHUD	DWXUH	f
6ROGHULQJ 7LPH		V PD[



1RWH

5HIORZ VROGHULQJ LV UHFRPPHQGHG/ DWRZKH QHPSHWDWWDQW DQW DQW
\$YRLG GLUHFV FRQVHDVSRPHQZDQWWRUDFRU H[FHHGLQJ LWV PD
VWRUDJH WHPSHUDWXUH

\$SSOLFDWLRQ RKHUSRYXENRQLVLSOHGDDWHG WHPSHUDWXUHV ,QV
VFHQDULRV DQHPSVOLGRWRHFFHHG 1

(QVXUH WKH FRPSRQHQW KDV FRROHG SURPHQVHQDQWZLXPSWHDXHQL
PDQXIDFWXULQJ VWHSV

7KH FRPSRQHQW KDV BQKHODUZKHQVWDQGHGKFRQGLWLRQV

5HFRPPHQG VWRUDJH 7HPS a f&

5HFRPPHQG VWRUDJH KXPLGLW\

06/ OHYHO 06/

,QIRUPDWLRQ IXUQXPHQW/ LQ WKOLHGRHG WR EH DFFXUDWH D
-LDQJVV -LH-LH 0LRRHOWHG WDVROLFV VQLRV UHRSRQHLERQVHT
RI XVH ZLWKRXW FRQVLGHUDWLRQ IRG MWFKQIQURPDVWLRQ
LQ WKLV GRFXPHQW LQJYXZLWHFRXWRQRWLFH DSDUW IURP V
VLJQH -LDQJVSOLHVLZLFRKPKH DJUHHPHQW

3URGXFWV DQG LQIRUPDWLRQ SURYLGHG LQ HQWVHG RFDXPH
-LDQJVV -LH-LH DVVXPHLOQR\URVSRQVLQIULQJHPPHQW RI RW
ZKLFK PD\ UHVXOW IURP WKH XVH RI VXLW SURFXPHQW DQGS HL
DQG UHSODFHV DOO LQIRUPDWLRQ SUHYLRXVO\ VXSSOLHG

LV D UHJLVWHUHGDQWJDXGLHDUNRUFURHOHFWURQLFV & R
&RS\ULJKW -LDQJVV -LH-LH 0LFURHOHFWURQLFV & R