

KEC Products for Charger

Bridge Diode

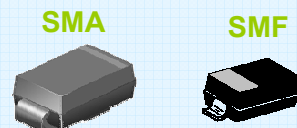
Outline				
Rating	600V / 0.5A	600V / 0.5A	600V / 1A	600V / 1A
PKG	MBM	MBS	DF	DFS
Size (mm)	4.7X3.9X3.1	4.7X3.9X3.1	8.3X6.4X3.2	8.3X6.4X3.2

Recti Diode

- **Schottky Barrier Diode (SBD)**
- **Fast Recovery Diode (FRD)**

- ▶ VRRM : 30V / 40V / 60V / 100V
- ▶ I_o : 1A ~ 3A
- ▶ PKG : SMA, SMF

- ▶ VRRM : 200V
- ▶ I_o : 1A / 2A
- ▶ PKG : SMA



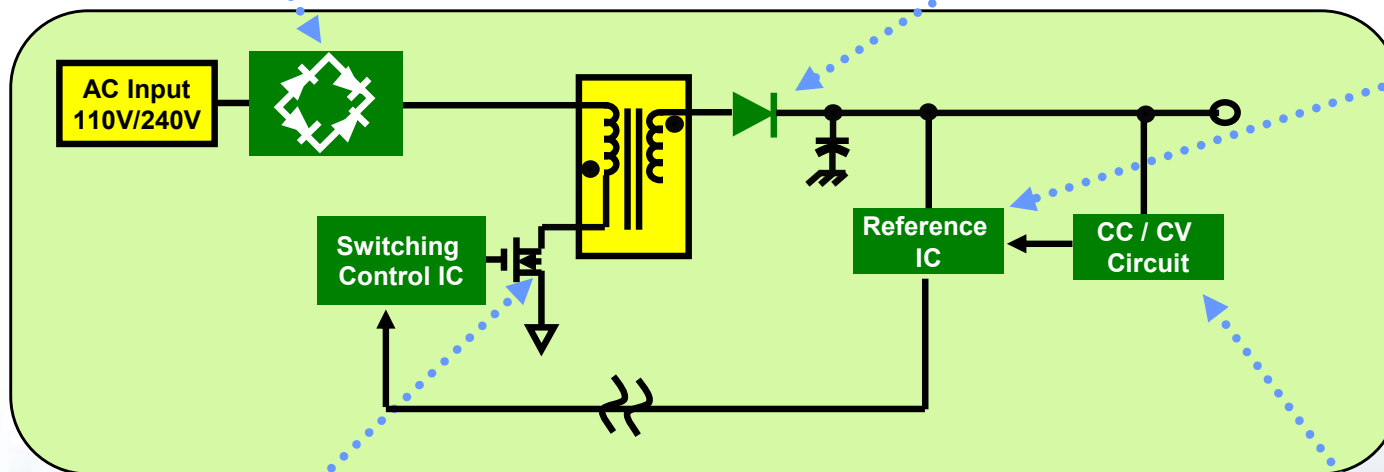
Shunt Regulator

- **KIA431 Series**

- ▶ V_{ref} = 2.495V
- ▶ Variable Voltage Tolerance rank
- ▶ PKG : TO-92, SOT-89, TSM

- **KIA2431 Series**

- ▶ V_{ref} = 1.24V
- ▶ Variable Voltage Tolerance rank
- ▶ PKG : TO-92, TSM



Switching Device

- **Power Transistor**

- ▶ V_{CB0}=700V, V_{CE0}=400V, I_c=1.5A
- ▶ MJE13003 → TO-126, P_c=20W
- ▶ KTC3003 → TO-92, P_c=1.1W

- **Power MOSFET**

- ▶ KHB1D0N60D/I (600V / 1A)
- ▶ KHB1D9N60D/I (600V / 1.9A)
- ▶ KHB2D060P/F (600V / 2A)
- ▶ KHB1D2N80F (800V / 1.2A)

G/P Product

- **S-MOSFET**

- ▶ For CC/CV Protect Circuit
- ▶ 2N7000 (TO-92) / 2N7002 (SOT-23)
- ▶ Suffix "K" : Built in Zener Diode

- **etc.**

- ▶ KIA358 : Low Noise OP-AMP
- ▶ KIA393 / KIA339 : Comparator
- ▶ General Purpose Transistor → BC847, BC857, BC807, BC817

KEC Products for SMPS

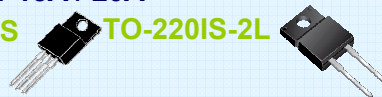
G/P Product

- ▶ KIA358 : Low Noise OP-AMP
- ▶ KIA393 / KIA339 : Comparator
- ▶ General Purpose Transistor
→ BC847, BC857, BC807, BC817
2N3904/ 2N3906 / KN2222 / KN2222A

Recti Diode

Schottky Barrier Diode (SBD)

- ▶ VRRM : 45V / 60V / 100V / 150V / 200V
- ▶ I_o : 5A / 10A / 15A / 20A
- ▶ PKG TO-220IS TO-220IS-2L



Linear Regulator

KIA78xx Series

- Standard / Quasi / Low Drop Regulator
- Variable Output Option
- Enable Function, Low Consumption
- PKG : TO-220, TO-220-4, DPAK, D2PAK

Switching Regulator

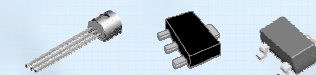
KIA2596 / KIA2576

- Output Voltage : Adj, 3.3V, 5V, 12V
- Output Current : 3A, 5A
- PKG : TO220-5, DPAK-5

Shunt Regulator

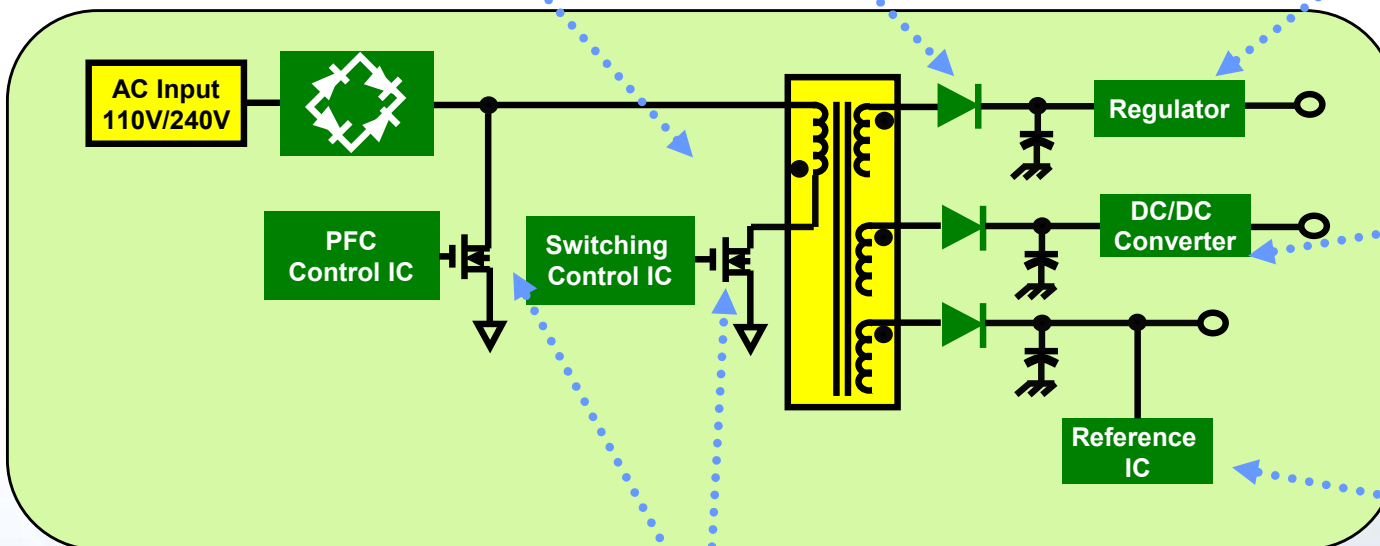
KIA431 Series

- ▶ V_{ref} = 2.495V
- ▶ Variable Voltage Tolerance rank
- ▶ PKG : TO-92, SOT-89, TSM



KIA2431 Series

- ▶ V_{ref} = 1.24V
- ▶ Variable Voltage Tolerance rank
- ▶ PKG : TO-92, TSM



MOSFET

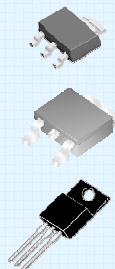
- 600V ~ 800V High Voltage for Switching
- 500V ~ 600V for PFC
- S-MOSFET for Protect Circuit
- 20V~75V For DC/DC Converter

Power MOSFET

- ▶ KHB4D5N60P/F (600V / 4.5A)
- ▶ KHB7D5N60P/F (600V / 7.5A)
- ▶ KHB4D0N65P/F (650V / 4A)
- ▶ KHB7D0N65P/F (650V / 7A)
- ▶ KHB4D0N80P/F (800V / 4A)
- ▶ KHB7D0N80P/F (800V / 7A)

Quasi LDO

- **KIA1117Sxx Series**
▶ Package : SOT-223
- **KIA1117Fxx Series**
▶ Package : D-PAK
- **KIA1117Plxx Series**
▶ Package : TO-220IS

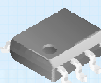
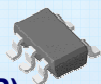


- ✓ Drop Voltage : 1.1 V (Typ)
- ✓ Line Regulation 0.2% (max)
- ✓ Load Regulation 0.5% (max)
- ✓ Output Voltage Option

Adj. / 1.5V / 1.8V / 2.5V / 3.3V / 5V

Logic IC

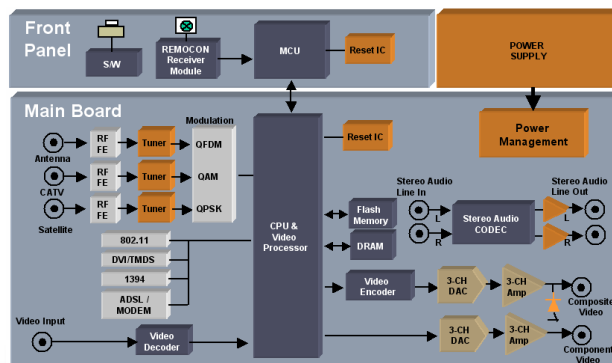
- **High Speed Type**
▶ **KIC7SxxFU / KIC7WxxFK**
- ✓ Propagation Delay Time = 7ns(TYP)
- ✓ Operating Voltage Range = 2~6V
- ✓ Output Current Iout = ±12.5mA / ±25mA
- **Super High Speed Type**
▶ **KIC7SZxxFU / KIC7WZxxFK**



- ✓ Propagation Delay Time = 2.4ns(TYP)
- ✓ Operating Voltage Range = 1.8~5.5V
- ✓ Output Current Iout = ±50mA

LDO

- **KIA78R000F**
▶ Power Source for DDR-SRAM Reference
: $V_{cc} / 2$ (1.25V)
- ✓ Output Current = 1A
- ✓ Output Voltage = Adjustable
- ✓ Enable Function
- ✓ $V_{ref} = 1.25V$



OP-Amp

- **KIA358F**
✓ Operating Voltage = ±18V
✓ Dual OP-Amp
- **KIA75S358F**
✓ Operating Voltage = ±18V
✓ Single OP-Amp
- **KIA4558F**
✓ Operating Voltage = ±18V
✓ Dual Low Noise OP-Amp

Transistor

- **BC Series**
NPN TR : BC817 / BC846 / BC847
PNP TR : BC807 / BC857 / BC856
→ For Switching Application
- **Switching TR**
NPN TR : KN2222S / KN2222AS / KN3904
PNP TR : KN2907S / KN2907AS / KN3906
→ For Video filter
- **High Voltage TR**
NPN TR : MMBTA42 / MMBTA44
PNP TR : MMBTA92

Diode

- **Switching Diode**

KDS160 / KDS193 / KDS181 / KDS184 / KDS226
(BAS16) (BAV99)
→ For Video / Audio I/O Line Surge Protect
- **Zener Diode**
▶ KDZ-EV Series (ESC) : 150mW
▶ KDZ-V Series (SOT-23) : 200mW
▶ Z02W-V Series (SOT-23) : 200mW
▶ MMBZ52xxB Series (SOT-23) : 300mW

USB Part

- Built-in Resistor Transistor
 - KRC4□□V, KRC4□□E
- Schottky Barrier Diode
 - KDR730E/V/F, KDR720E/V/F

TFSC, SMA

- EMI Filter + ESD
 - (NEW) PF05FUUSV

USV (2.0mmx1.25mmx0.9mm)

- TVS Diode
 - PG05FBESC

ESC (1.2mmx0.8mmx0.6mm)

(NEW) PG05DBTFC

VSC, ESC, USC, SMF

CAMERA Flash

- Low VCE(sat) Transistor
 - KTC4072V, KTC4072E

- EMI Filter + ESD
 - (NEW) PF05FUUSV

USV (2.0mmx1.25mmx0.9mm)

USV, US8

2.4ns~7ns (Typ.)

- Logic MOS Gate IC
 - KIC7S/SH/SZ
 - KIC7WZ□□FK

White LED Driver IC

- DC-DC Converter
- Inductor

- KIB3401F, KIB3402F

TS6 (2.9mmx1.6mmx0.7mm)

- Charge pump

- KAC3301QN

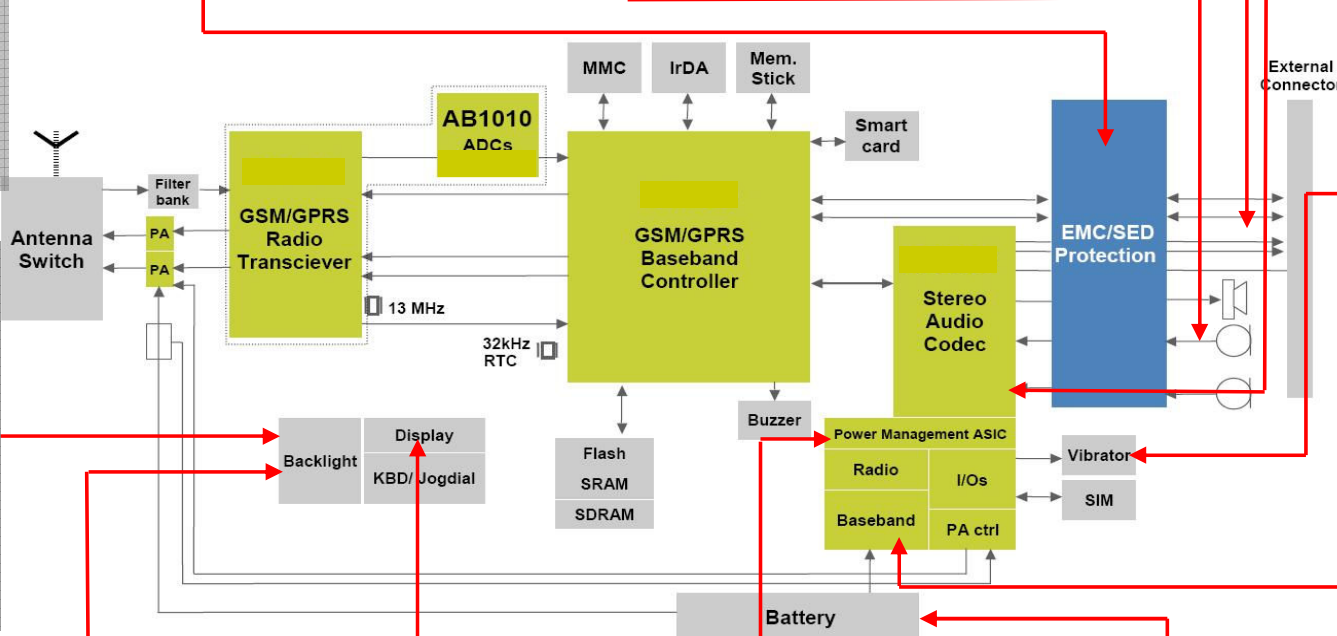
- KAC3302QN

QFN16 (4.0mmx4.0mmx0.9mm)

TQFN16 (4.0mmx4.0mmx0.75mm)

- KAC3303DN

TDFN12 (3.0mmx3.0mmx0.75mm)



MOTOR

- Built-in Resistor Transistor
 - KRC4□□V,
 - KRC4□□E
- (SOT23 ~ TFMS)
- Switching Transistor
 - KTN2907AU
- Complex Device
 - KTX403U (TR+ Diode)
- Switching Diode
 - KDS160E

Keypad backlight

- Built-in Resistor Transistor
 - KRC4□□V, KRC4□□E
- Switching/GP Transistor
 - KTN2222AU, 2N5406S, MMBTA56
- Zener Diode
 - KDZ100V,
 - KDZ100VW

LCD Module

- TVS Diode (NEW)
 - PG05DBTFC, PG05CBVSC
- Schottky Barrier Diode
 - KDR730E/V/F,
 - KDR720E/V/F

Low Dropout Regulator

TSV

(2.9mmx1.6mmx0.7mm)

(2.8V, 2.85V, 3.3V, 3.6V)

(NEW) KR15S028M

TVS Diode

TFSC

(0.8mmx0.6mmx0.38mm)

(3.3V, 5V, 12V, 24V)

(NEW) PG05DBTFC

PG05DBVSC

Power line switch

- Built-in Resistor Transistor
 - KRA3□□V, KRA3□□E
- S-MOS FET
 - KTK51□□□, KTJ6131E
- Switching Diode
 - KDS120V/E, KDS121V/E
- Complex BRT
 - KRX101E/U ~ KRX105E/U
 - KRX201E/U ~ KRX209E/U
 - KTX211E/U ~ KTX214E/U
- Zener Diode
 - KDZ6.8EV, USFZ5.6V

● ESD PROTECTOR

◆ ZENER DIODE

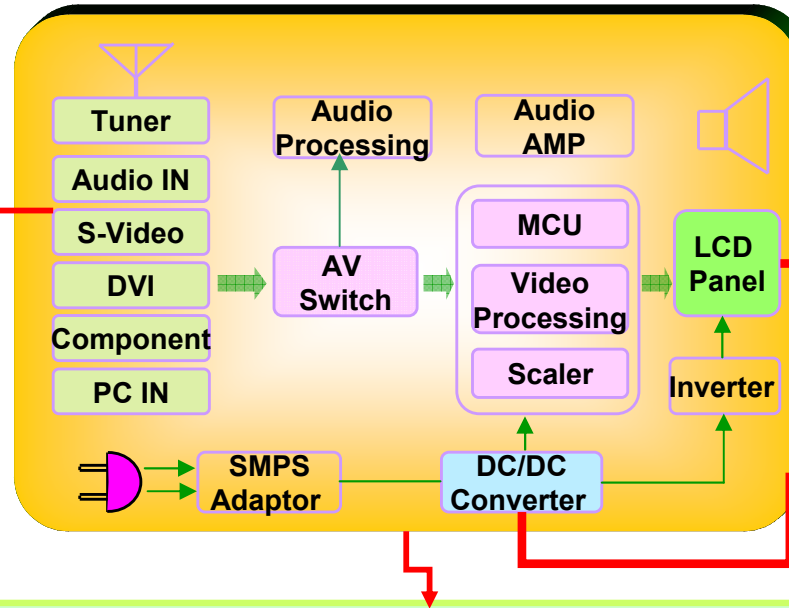
Z02W5.1V, Z02W6.2V
Z02W8.2V, Z02W9.1V

Zener Voltage / 2.0V~24V
Package / ESC, USC, SOT-23

◆ TVS Diodes

Very High Peak Power
Various Junction Capacitance

Package= ESC,USC,SOT-23



● POWER MANAGEMENT

◆ MOSFET

KMA6D5P20Q, KMA6D0P20X,
KMA5D8DP20Q

$V_{DS}=20/30V$, $I_{OUT}=5A\sim 8.5A$
Package= TSOP-6 / FLP-8

◆ DC-DC CONVERTER

KIA34063AF, KIA2596FP, KIA2576FP

$V_{OUT}/I_O=3.3V, 5V, Adj$, $1A\sim 3A$
Package= FLP-8/. D2PAK-5

◆ VOLTAGE REGULATOR

KIA78**, KIA1117S18/25/33/00

$V_{OUT}/I_O=1.25V\sim 15V/0.5A\sim 5A$
Package= SOT-223, DPAK, D2PAK-5

● G/P

◆ SW DIODE

KDS181, KDS184
KDS226

$V_R/I_O=80V/0.1A$
Package=ESC ~ SOT-23

◆ SBD

SMAB34, SMB34, SMC34
KDR728, KDR720S

$V_R/I_O=10V\sim 50V/0.03A\sim 10A$
Package=ESC ~ SOT-23

◆ SW TR

KTC3875S, KTA1504S
KTA1505S, KTC3881S

$V_R/I_O=20V\sim 80V/0.1A\sim 0.8A$
Package=SOT-23

◆ BRT

(Digital TR)
KRA/C □□□
 $R_1, R_2: 1k\Omega \sim 100k\Omega$

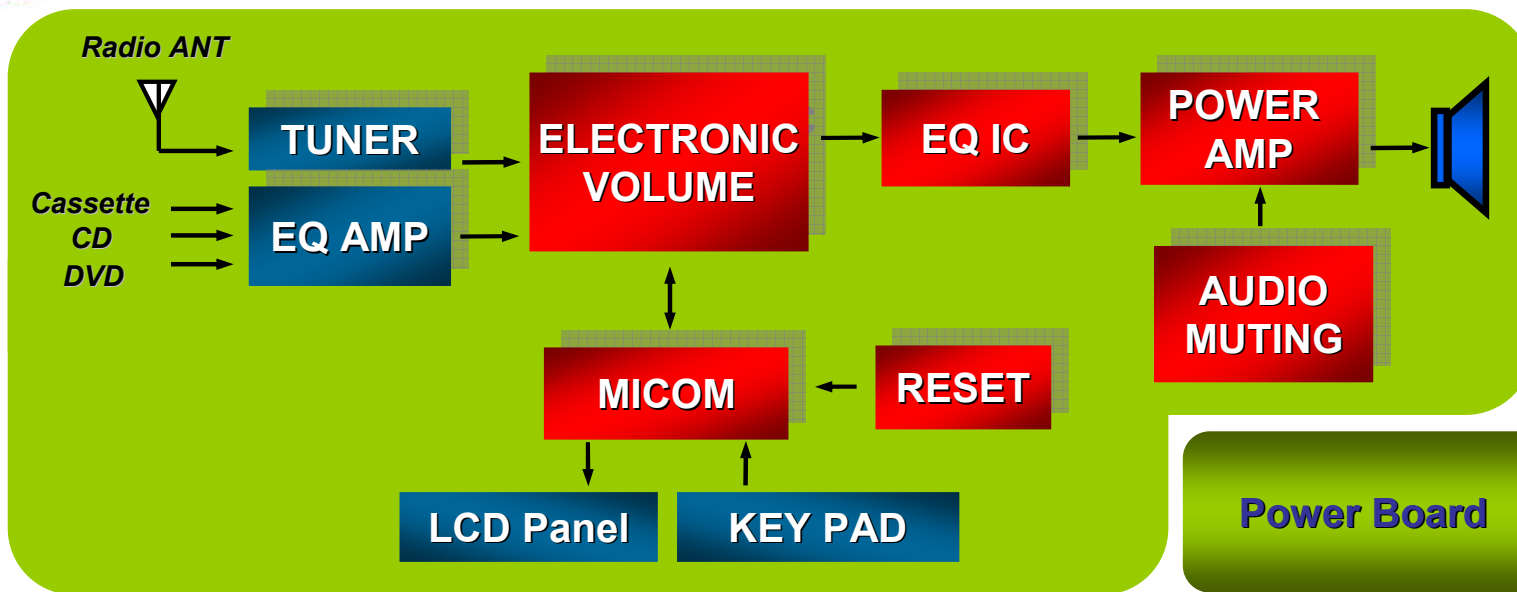
Package=SOT-23

◆ VOLTAGE DETECTOR

KIA7027AF, KIA7035AF

$V_S=1.9V\sim 4.5V$
Package= TSM, SOT-89

ESC	USC	VSM	ESM	USM	SOT-23	TSM	SOT-89	SOT-223	DPAK	D2PAK-5
1.2*0.8*0.6	1.7*1.25*1.0	1.2*0.8*0.5	1.6*0.85*0.7	2.0*1.25*0.9	2.93*1.3*1.0	2.9*1.6*0.7	4.7*2.5*1.7	6.5*3.5*1.8	6.6*6.1*2.3	15.8*10.2*2.5



● **Voltage Regulator**

▶ **Standard Regulator**

- KIA78xx Series
- KIA79xx Series
- Drop Voltage $\leq 2V$
- Current : 1A
- PKG : 1A

▶ **Quasi LDO**

- KIA1117xxx Series
- Drop Voltage $\leq 1.2V$
- Current : 1A, 1.5A
- PKG : SOT-223, DPAK, TO-220

▶ **LDO**

- KIA78Rxx Series
- Drop Voltage $\leq 0.5V$
- ON/OFF Control enable
- Current : 1A, 2A, 3A, 5A
- PKG : TO-220-4, DPAK-5

● **Dual Low Noise OP AMP**

KIA4558F

Gv : 100dB, SR : 1V/ μ s, FT : 3MHz

KIA4559F

Gv : 100dB, SR : 2V/ μ s, FT : 5MHz

● **Switching Diodes**

($V_R=80V, I_o=100mA$)

	USC	ESC
	KDS160	KDS160E
	SOT-23	USM
	KDS181	KDS120
	KDS184	KDS121
	KDS226	KDS122

● **Built-in Resistor TR**

($V_{CE0}=50V, I_c=100mA$)

	PNP	NPN
SOT-23	KRA1□□S	KRC1□□S
USM	KRA3□□	KRC4□□
USV	KRX1□□S	

□□ : Serial Number

($V_{CE0}=12V, I_c=500mA$)

	PNP	NPN
USM	KRA35□	KRC45□

□ : Serial Number

● **General Purpose TR**

($V_{CE0}=50V, I_c=150mA$)

	PNP	NPN
SOT-23	KTA1504S	KTC3875S
USM	KTA2014	KTC4075

● **Voltage Detectors**

KIA70□□A■

□□ : Detecting Voltage

■ : Package Type

F→SOT-89, T→TSM

● **L-MOS(Logic MOS)**

	USV	US8
Inverter	KIC7S04FU	KIC7W04FK
AND Gate	KIC7S08FU	KIC7W08FK
OR Gate	KIC7S32FU	KIC7W32FK

● **Surge Protect**

- ▶ TVS Diode
- ▶ Surge absorber Diode
- ▶ Zener Diode

● **Power Schottky Barrie Diode**

- ▶ PKG : SMA, SMB (MP : 06' Oct), SMC (06' Oct)
- ▶ Current : 1A ~ 5A
- ▶ Vr = 30V ~ 60V

● **Audio Muting TR / BRT**

KTD1304, KTC812T

$V_{CE0} = 20V, I_c = 0.3A$

TSV	SOT-23	USM
KRC68□T	KRC2□□S	KRC28□U

□□ : Serial Number