

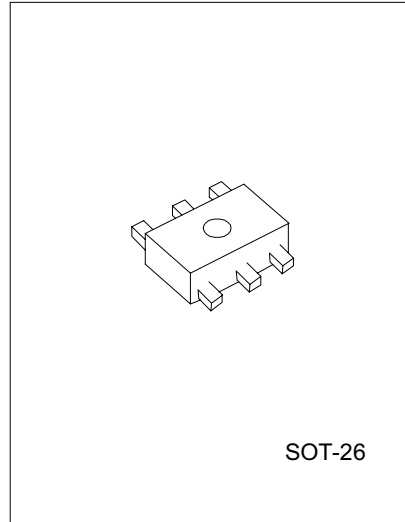
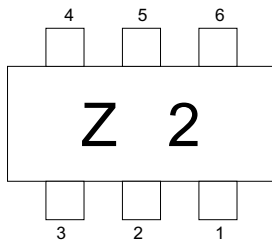
POWER MANAGEMENT

DESCRIPTION

FEATURES

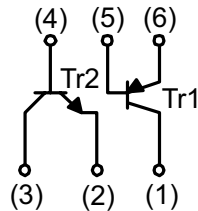
*Both a 2SA1037AK chip and 2SC2412K chip in a SMT package

MARKING



- PIN 1 : Collector (1) PIN 4: Base (2)
- PIN 2: Emitter (2) PIN 5: Base (1)
- PIN 3: Collector (2) PIN 6: Emitter (1)

EQUIVALENT CIRCUITS



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	LIMITS		UNIT
		Tr1	Tr2	
Collector-Base Voltage	V_{CBO}	-60	60	V
Collector-Emitter Voltage	V_{CEO}	-50	50	V
Emitter-Base Voltage	V_{EBO}	-6	7	V
Collector Power Dissipation (total)	P_C	300 (note)		mW
Collector Current	I_C	-150	150	mA
Junction Temperature	T_J	150		°C
Storage Temperature	TSTG	-55~+150		°C

Note: 200mW per element must not be exceeded.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Tr1

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _c = -50μA	-60	-	-	V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _c = -1mA	-50	-	-	V
Emitter-Base Breakdown Voltage	BV _{EB0}	I _E = -50μA	-6	-	-	V
Collector Cut-Off Current	I _{CB0}	V _{CB} = -60V	-	-	-0.1	μA
Emitter Cut-Off Current	I _{EB0}	V _{EB} = -6V	-	-	-0.1	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c / I _B = -50mA/-5mA	-	-	-0.5	V
DC Current Transfer Ratio	h _{FE}	V _{CE} = -6V, I _c = -1mA	120	-	560	-
Transition Frequency	f _T	V _{CE} = -12V, I _E = 2mA, f = 100MHz (note)	-	140	-	MHz
Output Capacitance	C _{ob}	V _{CB} = -12V, I _E = 0A, f = 1MHz	-	4	5	pF

Note: Transition frequency of the device.

Tr2

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _c = 50μA	60	-	-	V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _c = 1mA	50	-	-	V
Emitter-Base Breakdown Voltage	BV _{EB0}	I _E = 50μA	7	-	-	V
Collector Cut-Off Current	I _{CB0}	V _{CB} = 60V	-	-	0.1	μA
Emitter Cut-Off Current	I _{EB0}	V _{EB} = 7V	-	-	0.1	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c / I _B = 50mA/5mA	-	-	0.4	V
DC Current Transfer Ratio	h _{FE}	V _{CE} = 6V, I _c = 1mA	120	-	560	-
Transition Frequency	f _T	V _{CE} = 12V, I _E = -2mA, f = 100MHz (note)	-	180	-	MHz
Output Capacitance	C _{ob}	V _{CB} = 12V, I _E = 0A, f = 1MHz	-	2	3.5	pF

Note: Transition frequency of the device.