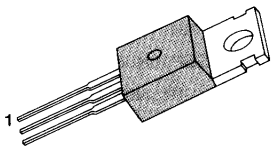
KSC5367

NPN TRIPLE DIFFUSED PLANAR SILICON TRANSISTOR

HIGH VOLTAGE AND HIGH RELIABILITY

- High speed Switching
- Wide Safe Operating Area
- High Collector Base Voltage

TO-220



1.Base 2.Collector 3.Emitter

ABSOLUTE MAXIMUM RATINGS

Characteristic		Symbol	Rating	Unit
Collector Base Voltage		V_{CBO}	1600	V
Collector Emitter Voltage		V_{CEO}	800	V
Emitter Base Voltage		V_{EBO}	12	V
Collector Current	DC	I_C	3	A
	Pulse★	I_{CP}	6	
Base Current	DC	I_B	2	A
	Pulse★	I_{BP}	4	
Collector Dissipation (T_C=25℃)		P_C	80	W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-65 ~ 150	℃

★ Pulse Test : Pulse Width=5ms, Duty Cycle≤10%

ELECTRICAL CHARACTERISTICS (T_C=25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Base Breakdown Voltage	BV_{CBO}	I_C = 1mA, I_E = 0	1600	-	-	V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C = 5mA, I_B = 0	800	-	-	V
Emitter Base Breakdown Voltage	BV_{EBO}	I_C =0.5mA, I_C = 0	12	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 1,600V, I_E = 0	-	-	20	uA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 12V, I_C = 0	-	-	20	uA
DC Current Gain	h_{FE}	V_{CE} = 3V, I_C = 0.4A	12	-	35	-
	h_{FE}	V_{CE} = 10V, I_C = 5mA	8	-	-	
Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 250mA, I_B = 25mA	-	-	2.5	V
		I_C = 500mA, I_B = 50mA	-	-	4.5	
		I_C = 1A, I_B= 0.2A	-	-	2.5	
Base Emitter Saturation Voltage	V_{BE}(sat)	I_C = 3A, I_B = 0.6A	-	-	1.5	V
Output Capacitance	C_{OB}	I_C = 500mA, I_B = 50mA	-	40		pF
Turn on Time	t_{ON}	V_{CC} = 125V,	-	-	0.5	uS
Storage Time	t_{STG}	I_C = 0.5A		-	2.2	
Falling Time	t_F	I_B1 = 42mA, I_B2 = -333mA	-	-	0.5	
Turn on Time	t_{ON}	V_{CC} = 250V,	-	-	0.5	uS
Storage Time	t_{STG}	I_C = 1A	-	-	4.0	
Falling Time	t_F	I_B1 = 0.2A, I_B2 = -0.4A	-	-	0.5	

SAMSUNG ELECTRONICS

THERMAL CHARACTERISTICS

Characteristic		Symbol	Max	Unit
Thermal Resistance	Junction to Case	$R_{\theta j\text{-}C}$	1.25	℃/w
	Junction to Ambient	$R_{\theta j\text{-}a}$	62.5	

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